

Houses in which Scarlet Fever have occurred
marked with a RED DOT

" " Typhoid Fever have occurred
marked with a RED CROSS

" " Diphtheria have occurred
marked with a BLUE CROSS

PORTSMOUTH

HARBOUR

NORTHSEA

COPNOR

LANGSTON

HARBOUR

Fountain Lake

DOCKYARD

NAVAL
BARRACKS

CARRISON
HOSPITAL

GUN
WHARF

PORTSMOUTH

KINGSTON

FRACTION

Fraction Station

MILTON

BOROUGH OF PORTSMOUTH
LUNATIC ASYLUM

EASTNEY

EASTNEY
(RMA)
BARRACKS

Southsea Sta
(LEAST)

LUMPS FORT

MAP OF PORTSMOUTH

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111, High Street PORTSMOUTH.

SCALE

FROM THE ORDNANCE ACTUAL SURVEY

1900.



Borough of Portsmouth.

REPORT

ON THE

Health of Portsmouth

FOR THE YEAR 1900

BY

A. MEARNS FRASER, M.B., D.P.H.,

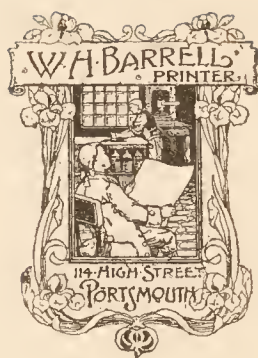
Medical Officer of Health,

and Medical Officer of Health for the Port of Portsmouth,

INCLUDING THE

Report of the Public Analyst :

J. MOORE MURRAY, M.Sc., F.C.S.



Drainage and Sanitary Committee.

(1899—1900.)

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Vice-Chairman :

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Medical Superintendent :

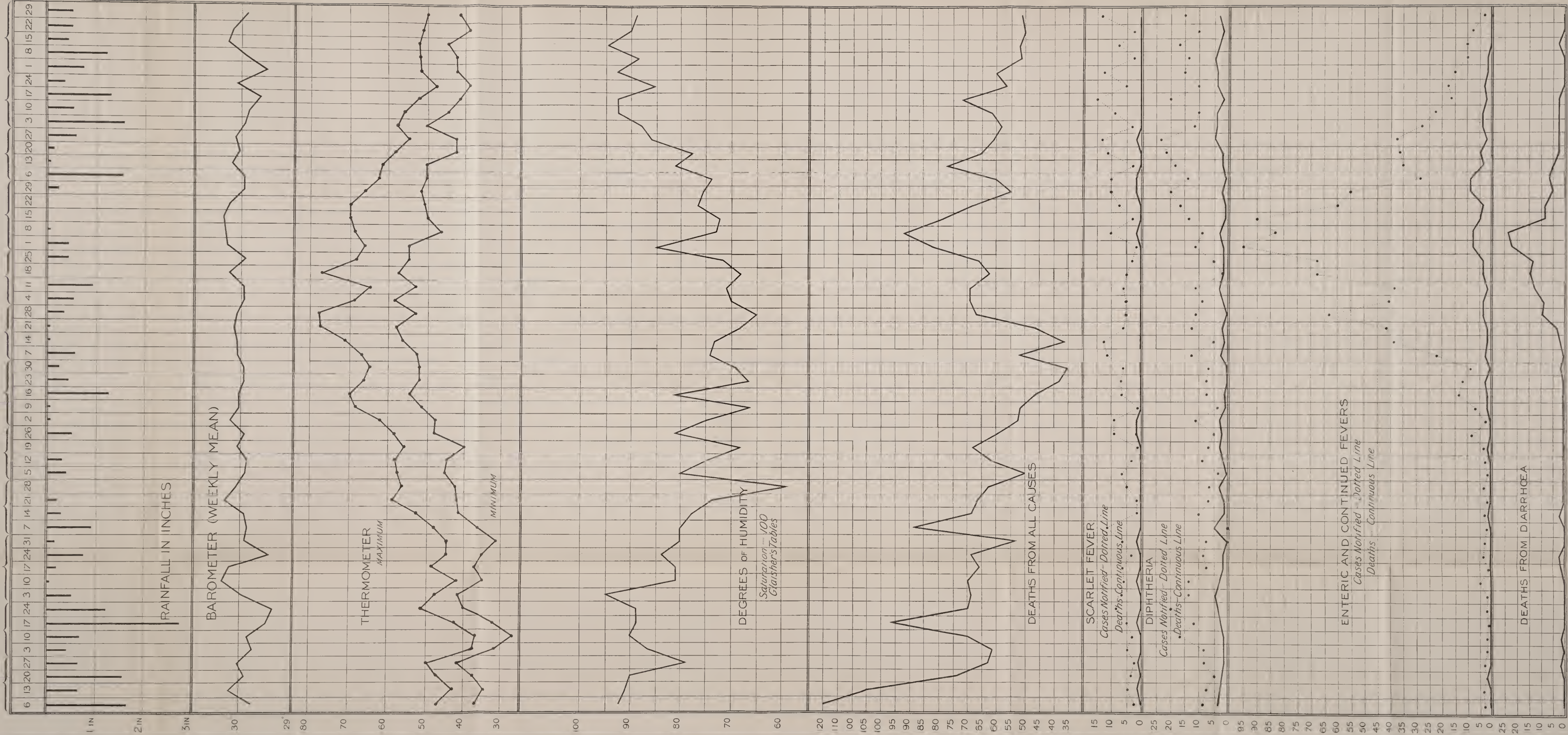
J. MCGREGOR, L.R.C.P., L.R.C.S.

Matron :

MRS. M. A. ANTRAM.

METEOROLOGICAL AND DISEASE CHART FOR 1900.

Jan. Feb. Mar. April. May. June. July. Aug. Sept. Oct. Nov. Dec.





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Report of the Medical Officer of Health

FOR THE YEAR ENDING 29TH DECEMBER, 1900.

To the Members of the Portsmouth Urban Sanitary Authority.

GENTLEMEN,

I have the honour to submit for your consideration my Annual Report on the Health of the Borough for the past year, containing statistical returns of deaths and infectious diseases, the measures adopted for the prevention of disease, and an account of the work done by the Health Department.

The general health of the town shows a marked improvement on that of the previous year; marred somewhat, however, by an increased prevalence of typhoid fever during the latter half of the year, and also by a heavier incidence of diphtheria.

I desire to express my appreciation of the continued kindness I have at all times experienced from the members of the Drainage and Sanitary Committee during the five years I have occupied my present position. Also to acknowledge frequent and cordial assistance from the Borough Engineer, Mr. Murch, and his staff. The whole of my Sanitary staff have performed their duties with efficiency.

I have the honour to be, Gentlemen,

Your obedient Servant,

A. MEARNS FRASER, M.B., D.P.H.,

Medical Officer of Health.

STATISTICS.

Population.—The population of the Borough of Portsmouth for 1900 is estimated by the Registrar General at 194,955. The census returns for this year (1901) are as yet not available; when they are published these figures may be found to be slightly inaccurate. They are obtained by assuming that the population from 1891 onwards has gone on increasing at the same rate of increase as from 1881 to 1891. Although possibly the census returns may be issued before this report can be published, the above estimated population is the one on which all death-rates, etc., have necessarily been based.

The density of the population is 43·4 persons to the acre, an increase of 7·9 per acre since the census of 1891.

The population of the various sub-districts is estimated to be as follows: Portsmouth, 7,000; Portsea, 14,000; Kingston, 77,473; Landport, 77,568; Southsea, 18,714.

Births.—There were during the year 4995 births registered, compared with 4819 in the previous year, which gives a birth-rate of 25·6. The birth-rate for the 33 large towns of England and Wales was 29·8. The steady decline in the birth-rate in Portsmouth and throughout the country is thus being continued.

The births occurred in the different quarters of the year as follows:—

First quarter, ending March 31st	...	1354	births
Second „ „ June 30th	...	1281	„
Third „ „ September 29th	...	1177	„
Fourth „ „ December 29th	...	1183	„
Total		4995	

Marriages.—1711 Marriages took place during the year, a decrease of 8 on the previous year, giving a marriage-rate of 17·5.

First quarter	...	307
Second „	...	464
Third „	...	417
Fourth „	...	523

Deaths.—During the year 3,359 deaths were registered, giving a death-rate of 17·28 per 1000; in the previous year there occurred 3,737 deaths, and the death-rate was 19·6.

The death-rates for the four quarters of the year were as follows :—

First quarter	...	20·4
Second „	...	15·4
Third „	...	17·3
Fourth „	...	16·0

It will be seen in Table III., in which the death-rates of the 33 large towns of England and Wales are given, that Portsmouth occupies the sixth place, the first being taken by Croydon, with a corrected death-rate of 15·22, and the last by Salford, of which the corrected death-rate was 28·22 per 1000. In the table for the previous year Portsmouth occupied the eleventh position. The corrected death-rate for the whole of England and Wales was 18·31 per 1000; that for England and Wales, less the 33 large towns, was 17·33, and for the 33 large towns it was 21·11.

In Table IV. are given the principal causes of death. There has been a considerable decrease in the infantile mortality, the number of deaths of children under one year being 771, compared with 986 in the previous year, and corresponding to a rate of 155 per 1000 births. The rate for 1899 was 197, and the average for the previous ten years was 155.

Zymotic Death-rate.—In the zymotic death-rate also (small-pox, measles, scarlet fever, diphtheria, whooping cough, fever, and diarrhœa) there is a decrease on the previous year, the rate being 2·38, compared with 3·38 per 1,000 in 1899. That for the 33 large towns was 2·50. The principal factors of this rate were diarrhœa 0·85, diphtheria 0·53, fever 0·47, and whooping cough 0·46 per 1000. The chief cause of the improvement in this rate was the reduction in the deaths from diarrhœa, these numbering 159, or 157 less than in the previous year. Unfortunately, during the latter part of the year there was a considerable increase in the deaths from typhoid fever; this, however, will be referred to further on in my report.

TABLE I.

Table showing the Population, Marriages, Inhabited Houses, Births and Deaths, for the year 1900, and the ten preceding years.

GROSS NUMBERS.

Year	Estimated Population	No. of Inhabited Houses	Marriages	Registered Births	Total Number of Deaths		
					Total, all ages	Under 1 year	Under 5 years
1900	194,955	37,007	1,711	4,995	3,359	771	1,123
1899	190,741	35,851	1,719	5,000	3,737	986	1,419
1898	186,618	34,967	1,684	4,971	3,048	681	1,036
1897	182,585	34,193	1,589	4,897	2,974	819	1,129
1896	178,612	34,739	1,581	5,006	3,030	785	1,156
1895	174,751	34,230	1,432	4,868	3,129	856	1,169
1894	170,973	31,377	1,462	4,709	2,593	611	967
1893	167,285	30,984	1,459	4,708	3,058	763	1,171
1892	163,667	30,305	1,464	4,563	3,026	719	1,068
1891	160,128	29,544	1,429	4,803	3,053	665	1,143
1890	156,667	28,875	1,318	4,881	2,847	648	941
Average ten years, 1890—99	173,202	32,506	1,513	4,840	3,049	753	1,191

NOTES.

- 1.—Population at Census, 1891 ... 159,255
- 2.—Area in Acres ... 4,486
- 3.—Average number of persons in each house at Census 5.4
- 4.—Average number of persons per acre at Census ... 35.5

TABLE II.

Table showing the Annual Birth-rate, Rate of Mortality, and Death-rates, among Children for the year 1900, and ten years preceding.

Year	Birth-rate per 1000 of the Population	Annual Rate of Mortality living from all causes	Annual Rate of Mortality per 1000 living from 7 principal Zymotic Diseases	Deaths of Children under 1 year: Percentage of Total Deaths	Percentage of Deaths of Children under 1 year to Registered Births	Deaths of Children under 5 years: Percentage of Total Deaths
1900	25.62	17.22	2.38	22.9	17.4	33.4
1899	26.23	19.59	3.38	26.4	19.7	37.8
1898	26.64	16.33	2.16	22.3	13.7	34.0
1897	26.82	16.28	2.53	27.5	16.7	37.9
1896	28.03	16.96	2.27	25.9	15.6	38.1
1895	27.84	17.90	2.31	27.3	17.6	37.5
1894	27.54	15.16	2.07	23.5	12.9	37.3
1893	28.14	18.28	3.09	24.9	16.4	38.3
1892	27.88	18.49	1.89	20.4	15.5	35.3
1891	29.90	19.06	2.49	21.7	13.8	37.4
1890	30.15	18.16	1.69	22.5	13.5	32.7
Average of 10 years, 1890—99	27.91	17.63	2.38	24.2	15.5	36.6

TABLE III.

Showing the Population, Birth-rates, Recorded Death-rates, Corrected Death-rates, Zymotic Rates, and Deaths under 1 Year to 1000 Births in the 33 Large Towns for the year 1900.

Name of Towns	Estimated Population middle of 1900	Per 1000 living			ZYMOTIC DEATH-RATE							Deaths of Children under 1 year of age to 1000 births	
		Birth-rate	Recorded Death-rate	Corrected Death-rate	Small- pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea		Total
33 TOWNS	11,610,296	29.4	19.54	21.11	0.00	0.43	0.13	0.35	0.45	0.20	0.94	2.50	172
CROYDON	131,186	24.9	14.60	15.22	..	0.15	0.04	0.18	0.44	0.07	0.56	1.44	132
CARDIFF	194,247	26.8	13.77	15.37	0.01	0.84	0.06	0.42	0.21	0.12	0.42	2.06	141
NORWICH	114,855	28.4	17.57	16.83	..	0.01	..	0.10	0.59	0.12	1.26	2.08	178
WEST HAM	314,472	28.6	15.93	17.19	..	0.48	0.05	0.50	0.59	0.18	1.30	3.10	189
BRISTOL	324,973	27.8	16.66	17.29	..	0.62	0.12	0.31	0.17	0.13	0.53	1.88	133
PORTSMOUTH	194,955	25.6	17.28	17.67	..	0.01	0.06	0.53	0.46	0.47	0.85	2.38	155
BRIGHTON	124,148	23.6	17.84	18.04	..	0.43	0.10	0.58	0.28	0.09	0.76	2.24	166
BIRKENHEAD	117,170	29.0	16.82	18.49	..	0.09	0.03	0.09	0.24	0.14	0.80	1.39	160
SWANSEA	105,472	26.7	17.07	18.65	..	0.64	0.07	0.58	0.15	0.15	0.58	2.17	175
BRADFORD	291,535	23.1	16.41	18.69	..	0.39	0.25	0.11	0.09	0.23	0.29	1.36	141
BURNLEY	116,730	25.3	16.30	18.72	..	0.14	0.48	0.19	0.36	0.14	1.22	2.53	205
LEICESTER	219,169	28.2	17.48	18.92	..	0.23	0.13	1.51	0.21	0.12	1.34	3.54	175
DERBY	107,991	26.9	17.46	19.26	..	0.90	0.20	0.06	0.48	0.19	0.47	2.30	174
HUDDERSFIELD	104,484	22.8	16.78	19.51	..	0.55	0.16	0.02	0.18	0.18	0.43	1.52	132
LONDON	4,589,129	28.6	18.79	20.02	0.00	0.42	0.08	0.34	0.43	0.17	0.78	2.21	160
HALIFAX	100,710	23.0	18.12	20.17	..	0.50	0.17	0.13	0.07	0.22	0.23	1.32	132
PLYMOUTH	102,161	27.9	20.80	20.22	..	0.93	0.01	0.11	0.12	0.21	0.97	2.35	175
GATESHEAD	109,403	36.3	19.02	20.43	..	0.14	0.07	0.05	0.56	0.08	0.85	1.75	169
NOTTINGHAM	242,676	27.7	19.10	20.54	..	0.18	0.22	0.12	0.42	0.33	1.08	2.35	196
HULL	238,736	32.9	19.75	20.75	0.03	0.58	0.16	0.08	0.31	0.21	1.68	3.10	183
NEWCASTLE-ON-TYNE	234,369	30.4	19.51	21.25	..	0.39	0.07	0.14	0.33	0.08	0.37	1.38	170
BOLTON	164,240	29.0	19.45	20.04	..	0.23	0.12	0.12	0.53	0.27	1.15	2.42	171
LEEDS	431,287	30.4	20.00	22.16	0.00	0.58	0.12	0.59	0.38	0.20	1.05	2.92	183
OLDHAM	153,297	24.2	19.55	22.39	0.02	0.71	0.36	0.13	0.58	0.11	0.53	2.44	172
SUNDERLAND	147,398	35.8	21.41	22.47	..	0.59	0.27	0.15	0.21	0.37	0.94	2.52	169
BLACKBURN	137,107	25.1	20.48	23.00	..	0.57	0.61	0.65	0.45	0.22	1.01	3.52	220
WOLVERHAMPTON	89,598	33.5	22.51	23.55	0.01	0.82	0.09	0.10	0.79	0.45	1.39	3.65	206
BIRMINGHAM	519,610	32.7	21.53	23.79	0.01	0.25	0.19	0.14	0.58	0.35	1.21	2.72	199
SHEFFIELD	365,922	34.1	22.59	25.12	..	0.55	0.17	1.26	0.55	0.28	1.52	4.33	200
PRESTON	118,902	29.0	24.03	26.42	..	1.07	0.29	0.38	0.57	0.39	1.67	4.37	236
MANCHESTER	548,768	32.3	24.13	27.34	..	0.47	0.19	0.18	0.68	0.14	1.39	3.05	189
LIVERPOOL	634,780	36.0	25.66	28.17	0.03	0.23	0.17	0.26	0.84	0.21	1.44	3.18	186
SALFORD	220,816	33.1	25.10	28.22	0.00	0.56	0.45	0.41	0.84	0.31	1.41	3.98	207

TABLE IV.

Deaths Registered at several groups of ages from the different classes of Diseases during the Year ending December 29th, 1900.

CAUSE OF DEATH	AGES										DISTRICTS					Totals		
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston		Landport	Southsea
CLASSES :																		
I.—ZYMOTIC DISEASES	196	131	82	29	32	27	18	9	13	14	11	3	23	33	274	211	24	565
II.—PARASITIC DISEASES	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
III.—DIETIC DISEASES	..	..	..	..	3	5	9	1	..	1	1	..	..	..	13	4	2	20
IV.—CONSTITUTIONAL DISEASES	51	38	37	69	81	85	82	25	30	55	23	2	12	43	274	218	31	578
V.—DEVELOPMENTAL DISEASES	117	..	..	..	..	..	..	3	9	71	123	43	..	30	194	130	12	366
VI.—LOCAL DISEASES	279	156	64	75	93	125	164	91	101	244	155	31	38	120	736	565	119	1578
VII.—DEATHS FROM VIOLENCE	24	15	6	11	11	16	8	3	4	8	10	1	5	8	57	39	8	117
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES	104	11	1	1	..	6	4	1	2	4	..	..	1	12	59	57	5	134
TOTALS	771	352	190	185	220	264	285	133	159	397	323	80	79	248	1607	1224	201	3359
CLASS 1.																		
ZYMOTIC DISEASES—																		
Order 1.—Miasmatic Diseases																		
Measles	1	2	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	3
Scarlet Fever	..	5	5	..	1	..	..	..	..	..	..	..	..	2	7	2	..	11
Whooping Cough	45	38	4	..	..	..	..	..	..	..	..	..	10	6	25	39	7	87
Diphtheria	3	56	43	1	1	..	..	..	..	..	..	..	..	3	58	40	3	104
Continued or Ill-Defined Fever	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1
Enteric or Typhoid Fever	..	13	24	21	13	16	4	..	1	..	..	..	1	7	56	27	1	92
Other Miasmatic Diseases—																		
(Influenza)	5	3	4	3	12	6	5	5	6	7	8	1	3	1	29	25	7	65
Order 2.—Diarrhoeal Diseases																		
Diarrhoea, Dysentery	133	12	1	..	1	1	1	2	2	4	2	..	8	11	65	70	5	159
Order 4.—Zoonogenous Diseases																		
Cowpox	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Order 5.—Venereal Diseases																		
Syphilis	5	..	1	..	4	1	2	1	1	..	..	..	..	1	13	1	..	15
Gonorrhoea	..	..	..	..	1	2	2	..	1	..	..	..	..	..	6	..	..	6

TABLE IV.—Continued.

CAUSE OF DEATH	AGES												DISTRICTS					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 30	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class I.—Continued																		
Order 6.—Septic Diseases																		
Erysipelas	3	1	..	1	..	2	..	1	1	1	..	2	..	2	7	3	..	12
Pyæmia, Septicæmia	1	2	..	1	..	..	..	..	..	..	..	..	..	..	3	1	..	4
Puerperal Fever	..	..	..	1	4	..	..	..	..	..	..	..	..	..	3	2	..	5
Class II.																		
PARASITIC DISEASES—																		
Thrush and other Vegetable																		
Parasitic Diseases	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Class III.																		
DIETIC DISEASES—																		
Chronic Alcoholism	..	..	..	..	3	4	9	1	..	1	1	..	..	1	13	3	2	19
Delirium Tremens	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Class IV.																		
CONSTITUTIONAL DISEASES—																		
Rheumatic Fever; Rheumatism	..	1	..	1	1	1	..	..	..	..	..	..	..	..	2	2	..	4
Rheumatism	..	..	2	3	2	1	4	1	..	2	1	..	..	..	9	6	1	16
Gout	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2	1	..	3
Rickets	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2
Cancer, Malignant Diseases	..	1	..	..	3	16	34	10	19	38	16	2	4	11	77	37	10	139
Tabes Mesenterica	..	13	4	..	..	..	..	..	..	..	..	..	2	..	8	20	3	33
Tubercular Meningitis,	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydrocephalus	18	12	9	3	..	..	..	14	7	10	..	..	1	2	13	24	2	42
Phthisis	9	3	20	55	65	62	39	..	..	..	2	..	3	25	140	109	9	286
Other forms of Tuberculosis,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scrofula	6	4	1	3	5	1	..	..	..	..	..	..	1	5	6	7	1	20
Purpura, Hæmorrhagic	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1
Diathesis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Anæmia, Chlorosis Leucocy-	..	..	..	2	..	2	1	..	..	..	..	..	..	..	3	3	..	6
thæmia	1	..	..	1	3	1	4	..	4	3	3	..	..	..	6	8	5	19
Glycosuria, Diabetes Mellitus	..	..	..	1	1	1	..	..	..	..	..	..	..	..	6	1	..	7
Other Constitutional Diseases	1	2	1	1	1	1	..	..	..	..	..	..	..	..	6	1	..	7

CLASS V.

DEVELOPMENTAL DISEASES—

Premature Birth

Congenital Malformation

Old Ag

CLASS VI.

LOCAL DISEASES—

Order I.—Diseases of Nervous System

Inflammation of Brain or

Membranes

Apoplexy, Softening of Brain,

Hemiplegia, Brain Paralysis

Insanity, General Paralysis of

the Insane

Epilepsy

Convulsions

Laryngismus Stridulus (Spasm)

of Glottis)

Diseases of Spinal Cord, Para-

plegia, Paralysis, Agitation

Other Diseases of Nervous

System

Order 2.—*Diseases of Organs of Special Sense (e.g. of Ear, Eye, Nose)*

Order 3.—Diseases of Circulatory System

Pericarditis

Acute Endocarditis

Valvular Disease of Heart

Other Diseases of Heart

Aneurism

Embolism, Thrombosis

Other Diseases of Blood Vessels

Order 4.—Diseases of Respiratory System

Laryngitis

Croup

Emphysema. Asthma.

Bronchitis

Pneumonia

TABLE IV.—Continued.

CAUSE OF DEATH	AGES											DISTRICTS				Totals		
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston		Landport	Southsea
Class VI.—Continued																		
Pleurisy ..	..	..	2	..	1	1	2	..	1	..	..	..	..	1	4	2	..	7
Other Diseases of Respiratory System ..	34	19	5	..	4	3	5	7	..	12	4	..	6	10	39	36	2	93
Order 5.—Diseases of Digestive System																		
Dentition ..	12	7	..	..	..	..	..	..	..	..	..	..	2	..	8	7	2	19
Diseases of Stomach ..	23	4	1	2	4	2	..	2	..	..	1	..	2	3	19	13	2	39
Enteritis ..	45	9	1	..	..	1	1	1	..	1	2	..	3	4	27	24	3	61
Obstructive Diseases, Intestines ..	1	..	2	1	2	..	4	1	2	3	1	..	..	1	8	6	2	17
Peritonitis ..	..	2	1	7	2	..	1	1	..	..	..	..	..	..	9	4	1	14
Ascites ..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	..	2
Cirrhosis of Liver ..	..	..	1	1	2	4	9	5	5	5	1	1	2	3	15	11	3	34
Jaundice and other Diseases of the Liver ..	2	..	1	2	1	..	1	..	1	1	1	..	..	3	4	2	1	10
Other Diseases of the Digestive System ..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	3
Order 6.—Diseases of Lymphatic System (e.g. of Lymphatics and Spleen) ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Order 7.—Diseases of Gland-like Organs ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
Order 8.—Diseases of Urinary System																		
Nephritis ..	..	1	1	1	4	5	9	5	7	7	5	1	..	4	25	14	3	46
Bright's Disease, Albuminuria ..	1	..	..	1	4	6	4	2	1	9	3	..	..	1	16	11	3	31
Disease of Bladder or of Prostate ..	..	..	..	..	..	2	1	..	2	3	2	..	..	..	4	5	1	10
Other Diseases of Urinary System ..	..	..	..	..	..	1	..	1	..	2	..	..	..	..	1	2	1	4
Order 9.—Diseases of Reproductive System, (a) of Organs of Generation, Male Organs, (b) of Parturition																		
Abortion, Miscarriage ..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	1	..	1
Puerperal Convulsions ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	..	3
Other accidents of Childbirth ..	2	..	..	3	3	3	..	..	..	..	..	..	..	..	8	2	1	11

Summary of Table IV.

Class	DISEASES				Number of Deaths
I.	ZYMOTIC DISEASES—				
	1.	Miasmatic Diseases	...	...	363
	2.	Diarrhœal Diseases	...	...	159
	3.	Malarial Diseases	...	...	—
	4.	Zoogenous Diseases	...	...	1
	5.	Venereal Diseases	...	...	21
	6.	Septic Diseases	...	...	21
II.	PARASITIC DISEASES				1
III.	DIETIC DISEASES ...				20
IV.	CONSTITUTIONAL DISEASES				578
V.	DEVELOPMENTAL DISEASES				366
VI.	LOCAL DISEASES—				
	1.	Diseases of the Nervous System	...	...	355
	2.	„ „ Organs of Special Sense	...	...	—
	3.	„ „ Circulatory System	...	...	342
	4.	„ „ Respiratory System	...	...	560
	5.	„ „ Digestive System	...	...	199
	6.	„ „ Lymphatic System	...	...	1
	7.	„ „ Gland-like Organs of Uncertain Use	...	...	1
	8.	„ „ Urinary System	...	...	91
	9.	„ „ Reproductive System—	...	...
		(a) Organs of Generation	...	...	1
		(b) Parturition	...	...	15
	10.	„ „ Bones and Joints	...	...	9
	11.	Integumentary System	...	...	4
VII.	VIOLENCE—				
	1.	Accident or Negligence	...	...	94
	2.	Homicide	...	...	—
	3.	Suicide	...	...	23
VIII.	ILL-DEFINED OR NOT SPECIFIED CAUSES				134

TABLE V.

Deaths Registered at several groups of Ages from different Classes of Diseases during
Quarter ending March 31st, 1900.

CAUSE OF DEATH	AGES											DISTRICTS					Totals	
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport		Southsea
Class I.—ZYMOTIC DISEASES—																		
Order 1.— <i>Miasmatic Diseases</i>																		
Measles ..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Scarlet Fever..	..	2	2	..	1	..	..	..	..	..	..	..	..	2	2	1	..	5
Whooping Cough ..	24	21	..	..	..	..	..	..	..	..	..	..	6	2	10	25	2	45
Diphtheria ..	2	17	10	..	..	..	..	..	..	..	..	..	..	2	23	4	..	29
Enteric or Typhoid Fever ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1
Other Miasmatic Diseases (Influenza)	3	1	3	2	3	3	7	3	4	8	6	1	3	..	18	18	5	44
Order 2.— <i>Diarrhaal Diseases</i>																		
Diarrhoea, Dysentery ..	1	..	..	..	1	..	..	1	1	1	..	..	2	..	2	1	..	5
Order 5.— <i>Veneral Diseases</i>																		
Syphilis ..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..	2
Gonorrhœa ..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	..	..	2
Order 6.— <i>Septic Diseases</i>																		
Erysipelas ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	2
Pyæmia, Septicæmia ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
II.—PARASITIC DISEASES ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III.—DIETIC DISEASES ..	..	..	..	..	..	1	3	..	..	..	1	..	..	1	4	..	..	5
IV.—CONSTITUTIONAL DISEASES	5	14	9	16	27	33	22	4	9	11	4	..	3	12	71	58	10	154
V.—DEVELOPMENTAL DISEASES	26	..	..	..	..	..	..	2	1	10	41	16	..	11	40	43	2	96
VI.—LOCAL DISEASES ..	76	64	21	28	27	26	51	34	33	104	65	11	13	31	237	208	51	540
VII.—DEATHS FROM VIOLENCE	11	3	2	4	3	4	3	..	..	2	3	1	3	3	13	13	4	36
VIII.—NOT SPECIFIED OR ILL-DEFINED ..	24	1	..	..	..	..	..	..	1	..	..	..	..	2	16	8	..	26
TOTALS	174	124	47	51	63	67	88	44	51	136	120	29	31	67	441	381	74	994

TABLE VI.
Deaths Registered at several groups of Ages from different Classes of Diseases during
Quarter ending June 30th, 1900.

CAUSE OF DEATH	AGES										DISTRICTS					Totals
											Ports. mouth	Portsea	Kingston	Landport	Southsea	
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75							75 to 85	85 and over
Class I.—ZYMOTIC DISEASES— Order 1.— <i>Miasmatic Diseases.</i> Measles Scarlet Fever Whooping Cough Diphtheria Enteric or Typhoid Fever Other Miasmatic Diseases (Influenza) Order 2.— <i>Diarrhoeal Diseases</i> Diarrhoea, Dysentery Order 5.— <i>Veneral Diseases</i> Syphilis Gonorrhoea Order 6.— <i>Septic Diseases</i> Erysipelas Pyæmia. Septicæmia Puerperal Fever II.—PARASITIC DISEASES III.—DIETIC DISEASES IV.—CONSTITUTIONAL DISEASES V.—DEVELOPMENTAL DISEASES VI.—LOCAL DISEASES VII.—DEATHS FROM VIOLENCE VIII.—NOT SPECIFIED OR ILL-DEFINED TOTALS 12 1 <															

TABLE VII.

Deaths Registered at several groups of Ages from different Classes of Diseases
during Quarter ending September 29th, 1900.

CAUSE OF DEATH	AGES										DISTRICTS				Totals			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea		Kingston	Landport	Southsea
Class I.—ZYMOTIC DISEASES—																		
Order 1.— <i>Miasmatic Diseases</i>																		
Scarlet Fever—	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2
Whooping Cough	7	4	..	..	..	..	..	..	..	..	..	..	..	2	5	4	..	11
Diphtheria ..	1	10	8	1	..	..	..	..	..	..	..	..	..	..	14	5	1	20
Enteric or Typhoid Fever	..	9	13	12	7	10	1	..	..	..	..	..	1	3	35	12	1	52
Other Miasmatic Diseases (Influenza) ..	1	..	1	..	1	..	..	1	..	..	..	..	..	..	3	1	..	4
Order 2.— <i>Diarrhoeal Diseases</i>																		
Diarrhoea, Dysentery ..	118	16	1	..	..	1	..	1	1	3	2	..	5	10	55	58	5	133
Order 5.— <i>Veneral Diseases</i>																		
Syphilis ..	3	..	..	..	2	1	..	..	..	..	..	..	..	..	5	1	..	6
Gonorrhoea ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1
Order 6.— <i>Septic Diseases</i>																		
Erysipelas ..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2
Pyæmia Septicæmia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Puerperal Fever	..	..	..	1	1	..	..	..	..	..	..	..	..	..	2	..	..	2
II.—PARASITIC DISEASES	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
III.—DIETIC DISEASES	..	..	..	..	2	2	2	..	..	..	..	..	..	..	4	2	..	6
IV.—CONSTITUTIONAL DISEASES	14	8	11	12	14	14	17	5	5	17	3	1	3	12	51	48	7	121
V.—DEVELOPMENTAL DISEASES	27	..	..	..	..	..	..	1	1	25	22	11	..	6	46	34	1	87
VI.—LOCAL DISEASES	84	25	10	12	19	35	41	13	21	33	16	5	9	27	151	106	21	314
VII.—DEATHS FROM VIOLENCE	3	3	2	3	3	7	2	..	..	4	2	..	1	1	15	10	2	29
VIII.—NOT SPECIFIED OR ILL-DEFINED ..	36	4	..	..	..	3	2	..	..	3	..	..	..	3	19	23	3	48
TOTALS	296	71	48	41	50	73	65	21	28	85	45	17	19	66	409	305	41	840

TABLE VIII.

Deaths Registered at several groups of Ages from different Classes of Diseases during
Quarter ending December 29th, 1900.

CAUSE OF DEATH	AGES											DISTRICTS					Totals		
												Ports- mouth	Portsea	Kingston	Landport	Southsea.			
	0 to 1	1 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85							85 and over	
Class I.—ZYMOTIC DISEASES—																			
Order 1.— <i>Miasmatic Diseases</i> —																			
Measles ..	1	..	..	..	..	..	...	..	..	..	..	..	..	..	..	..	1	..	1
Scarlet Fever ..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2
Whooping Cough ..	2	3	..	..	..	..	..	..	..	..	..	..	1	..	..	3	1	..	5
Diphtheria ..	..	18	19	..	..	..	..	..	..	..	..	..	..	..	..	10	25	..	37
Continued or Ill-Defined Fever	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1
Enteric or Typhoid Fever..	..	4	10	8	4	4	2	..	1	..	..	..	..	2	..	18	13	..	33
Other Miasmatic Diseases (Influenza) ..	..	1	..	1	..	..	1	..	2	..	1	..	..	..	..	5	1	..	6
Order 2.— <i>Diarrhoeal Diseases</i> —																			
Diarrhoea, Dysentery ..	13	4	..	..	..	..	1	..	..	..	..	..	..	1	7	10	..	..	18
Order 4.— <i>Zoogenous Diseases</i> —																			
Cowpox ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Order 5.— <i>Venereal Diseases</i> —																			
Gonorrhœa ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1
Order 6.— <i>Septic Diseases</i> —																			
Erysipelas ..	1	..	..	..	..	..	..	1	..	..	..	2	..	..	2	2	..	..	4
Pyæmia, Septicæmia ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
II.—PARASITIC DISEASES	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III.—DIETIC DISEASES	..	..	..	..	1	1	3	..	..	..	..	..	..	..	..	4	1	..	5
IV.—CONSTITUTIONAL DISEASES	21	6	4	22	22	24	23	6	7	13	11	..	3	10	82	58	6	..	159
V.—DEVELOPMENTAL DISEASES	..	..	..	..	..	..	..	..	2	15	30	7	..	4	53	24	5	..	86
VI.—LOCAL DISEASES	32	..	..	..	..	33	42	20	31	48	40	8	7	31	179	130	15	..	362
VII.—DEATHS FROM VIOLENCE	61	33	15	10	21	33	42	20	31	3	5	..	..	2	18	3	..	..	23
VIII.—NOT SPECIFIED OR ILL-DEFINED	3	1	2	3	2	2	1	1	1	..	..	..	1	3	12	15	2	..	33
TOTALS	158	77	52	44	50	66	75	29	47	76	87	17	12	53	398	284	31	778	

TABLE IX.

Table showing the Numbers and Death Rates per 1000 of Population from the Seven Principal Zymotic Diseases, from Lung Diseases (excluding Phthisis) from Phthisis, and from all causes, during each Quarter of the Year 1900, and for the whole Year 1900.

Quarter ending	*The Seven Principal Zymotic Diseases		Lung Diseases (excluding Phthisis)†		Phthisis		From all Causes	
	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000
March 31st ...	94	1.93	245	5.04	78	1.60	994	20.4
June 30th ...	57	1.16	133	2.73	72	1.48	747	15.4
September 29th ...	210	4.31	55	1.13	52	1.07	840	17.3
December 29th ...	101	2.07	110	2.26	80	1.64	778	16.0
THE YEAR 1900 ...	462	2.38	543	2.78	282	1.45	3359	17.2

*Includes Small-Pox, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Enteric or Typhoid Fever, and Diarrhœa.

†Includes Emphysema, Asthma, Bronchitis, Pneumonia, Pleurisy, and other Diseases of the Respiratory System.

TABLE X.

Shewing the Death Rates per 10,000 persons living, from the Seven Zymotic Diseases for each of the three Decennial periods: 1851-1860, 1861-1870, and 1871-1880, and for the four Quinquennial periods: 1881-1885, 1886-1890, 1891-1895, 1896-1900, and for the year 1900.

DISEASES	1851 to 1860	1861 to 1870	1871 to 1880	1881 to 1885	1886 to 1890	1891 to 1895	1896 to 1900	Year 1900
Deaths from all Causes ...	228.0	211.9	198.8	194.9	186.5	177.57	172.7	172.2
Zymotic Diseases ...	49.0	43.6	37.2	29.40	25.69	23.71	25.5	23.3
Small-pox ...	4.6	2.4	5.0	0.00	0.70	0.04	—	—
Measles ...	4.1	4.0	4.0	5.20	3.64	6.68	3.1	0.15
Scarlet Fever ...	8.8	8.3	5.5	1.46	1.20	0.95	0.9	0.56
Diphtheria ...	0.6	1.5	1.0	6.38	2.90	1.55	3.3	5.33
Whooping Cough ...	4.8	3.6	4.1	3.18	4.26	3.12	3.3	4.46
Fever ...	13.8	8.8	7.4	6.02	4.06	2.33	2.9	4.71
Diarrhoea and Cholera ...	13.1 —	13.1 0.9	10.1 0.2	7.14 —	9.58 —	8.91 —	11.7 —	8.15 —
Consumption ...	28.1	25.5	21.9	21.10	19.35	15.45	14.81	14.52

TABLE XI.

DIVISION I.

Showing the number of Deaths from all ages from certain groups of diseases, and proportions of deaths per 1000 of Population and to 1000 deaths from all causes.

DISEASES	Total Deaths	Deaths per 1000 of Population at all ages	Proportion of Deaths to 1000 Births
(1) Principal Zymotic Diseases ...	457	2.33	136
(2) Pulmonary Diseases (excluding Consumption)	543	2.78	162
(3) Principal Tubercular Diseases...	381	1.95	114

DIVISION II.

Deaths of infants under one year of age from Wasting and Convulsive Diseases ; also proportion of deaths under one year per 1000 births, and per 1000 Deaths from all causes under one year.

Infants under one year	Total Deaths	Deaths per 1000 Births	Deaths per 1000 of Total Deaths under one year
(4) Wasting Diseases	211	42.2	274
(5) Convulsive Diseases... ..	68	13.6	88

NOTES.

- (1) Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid or Enteric Fever, Continued Fever and Diarrhœa.
- (3) Includes Phthisis (or Consumption), Scrofula, Tuberculosis, Tabes Mesenterica, Tubercular Meningitis, and Hydrocephalus.
- (4) Includes Marasmus, Atrophy, Want of Breast Milk, and Premature Birth.
- (5) Includes Infantile Meningitis, Convulsions, and Teething.

TABLE XII.

Showing the number of Deaths in the Years 1861 to 1900 from the Seven principal Zymotic Diseases.

YEAR	POPULATION	DISEASES	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	
..	95220	Small-pox	1	..	12228	3	1	1	1	39	514	45	2	..	1	1	2
..	342	Measles	3	42	80	6	14	16	82	46	57	39	42	52	16	56	54	109	12	36	10	42	7	156	10164	7197	8	50	8	4223	38	120	139	39	126	35	73	50	3	3	3	3	
..	5226	Scarlet Fever	5	226	134	17	20	34	15	107	295	119	30	5	12	36	47	457	36	16	11	9	25	40	16	10	9	5	18	26	12	11	19	9	18	32	14	7	19	11	31	22	11
..	920	Diphtheria	9	20	24	17	7	26	4	18	18	13	10	21	15	19	18	11	5	1	4	20	205	106	20	41	42	65	47	17	33	47	23	26	29	34	18	20	22	54	120	104	
..	1136	Whooping Cough	11	36	16	48	50	46	23	57	26	46	66	17	19	104	8	42	59	92	9	48	66	36	54	9	44	102	41	26	92	39	38	87	36	41	64	60	65	42	62	87	
..	11128	Fever	111	128	57	72	74	85	74	119	105	91	72	112	97	101	103	71	87	96	62	70	60	107	93	58	93	124	53	27	32	50	33	42	54	29	37	28	44	44	75	93	
..	152	Diarrhoea	152	71	68	118	122	117	140	177	100	121	107	113	106	149	141	131	153	170	73	192	73	111	80	116	123	191	151	98	122	105	73	99	247	93	238	157	286	183	316	159	
Totals	..	292	523	391	498	317	330	338	338	526	602	430	366	834	310	470	371	822	322	411	169	381	436	556	274	397	314	698	329	230	300	265	399	310	518	354	403	410	463	427	645	457	

TABLE XIII.

Table showing the Death Rates per 1000 Inhabitants, from the chief Zymotic Diseases, Consumption and Diseases of the Lungs, in the Sub-Districts and in the whole Borough. Deaths from Zymotic Diseases occurring in Public Institutions are entered in the Districts from which the patients who died were removed. Deaths from the other diseases occurring in Public Institutions are distributed to the various Sub-Districts in accordance with the population for the year 1900, and also the means of the ten years 1890-1899 for the whole Borough.

DISEASES	Portsmouth	Portsea	Kingston	Landport	Southsea	Whole Borough	Means of 10 years 1890—99
Small-pox .. ..	..	..	..	..	..	..	0'00
Measles	0'14	..	0'14	..	0'05	0'01	0.49
Scarlet Fever .. ..	..	0'14	0'09	0'02	..	0'06	0'09
Diphtheria .. ..	..	0'21	0.74	0'51	0'16	0'53	0'21
Whooping Cough	1'43	0'42	0'32	0'51	0'37	0'46	0'30
Fever	0'14	0'49	0'72	0'35	0'05	0'47	0'25
Diarrhœa	1'14	0'77	0'84	0'90	0'27	0'85	1'01
Principal Zymotic Diseases ..	2'85	2'03	2'73	2'29	0'90	0'38	2'49
Consumption	0'43	1'76	1'80	1'40	0'48	1'46	1'58
Other Tubercular Diseases ..	0'57	0'49	0'27	0'65	0'32	0'48	0'37
Lung Diseases	2'00	3'11	3'00	2'81	1'76	2'80	2'94
FROM ALL CAUSES ..	11.28	17'48	20'74	15'78	10'74	17'23	17'84

Small-pox.—No case of Small-pox occurred in the Borough during the year. I enclose a table showing the number of infant vaccinations during the year.

Owing to the private enterprise of Councillors Gillett and Gill the Authority have been able to secure at the Locks, Milton, at very little expense, four houses in five acres of ground, which may be used for isolating any cases that may be brought to this town. Probably not more than nine or ten cases could be isolated there under present conditions, and should we be called upon to deal with an epidemic of any size, temporary structures would have to be relied upon. There have, however, only been seven cases in the Borough since 1894, so possibly these premises may be sufficient for some time to come. On the acquisition of these houses in which to treat Small-pox, the Local Government Board withdrew their objection to the borrowing of money to enlarge the present Infectious Diseases Hospital at Milton, which is now being proceeded with, with as little delay as possible.

TABLE XIV.

VACCINATION RETURNS—1st January to 30th June, 1900.

Registration Sub-Districts comprised in the Vaccination Officer's District	Number of Births returned in the Birth List Sheets as registered from 1st January to 30th June, 1900	Number of these Births duly entered by 31st January, 1901, in Columns 1, 2, 4 and 5, of the Vaccination Register Birth List Sheets, viz.:					Number of these Births which on 31st January, 1901, remained unentered in the Vaccination Register on account (as shown by Report Book) of				Number of these Births remaining on 31st January, 1901, neither duly entered in the Vaccination Register (columns 3, 4, 5, 6 and 7 of this Return) nor temporarily accounted for in the Report Book (columns 8, 9 and 10 of this Return)
		Col. 1 Successfully Vaccinated	Col. 2		Col. 4 Number in respect of whom Certi- ficates of Con- scientious Objection have been received	Col. 5 Dead unvaccinated	Postpone- ment by Medical Certificate	Removal to Districts the Vaccination Officer of which has been duly apprised	Removal to places un- known, or which cannot be reached; and cases not having been found		
			Insusceptible of Vaccination	Had Small-pox							
I	2	3	4	5	6	7	8	9	10	11	
1. Kingston and East Southsea	592	510	...	...	9	47	18	3	1	4
2. Portsmouth and Mid-Southsea	549	463	2	...	6	60	9	2	4	3	
3. Portsea and Landport	800	664	1	...	3	104	12	9	4	3	
4. North End and Buckland	695	613	1	...	4	52	15	5	3	2	
Totals ...	2636	2250	4	...	22	263	54	19	12	12	
VACCINATION OF CHILDREN whose Births were registered in this District from Jan. 1st to Dec. 31st, 1899, inclusive.											
1. Kingston and East Southsea...	1845	1563	21	...	9	219	6	14	9	4	
2. Portsmouth and Mid-Southsea	472	394	6	...	...	62	4	3	3	...
3. Portsea and Landport	633	518	3	...	3	95	2	8	4	...	
4. North End and Buckland	2031	1696	30	...	11	269	6	11	5	3	
Totals ...	4981	4171	60	...	23	645	18	36	21	7	

VACCINATION RETURNS FOR PAST TEN YEARS.

Year	Number of Births returned in birth sheets so registered from 1st January to 31st December	Successfully Vaccinated	Insusceptible to vaccination	Had Small-pox	Dead unvaccinated	Postpone-ment by Medical Certificate	Removed to Districts the Vacc. Officer of which has been appraised	Removed to places unknown	No. of these births remaining	No. in respect of which Certificates of conscientious objections have been received
1890	4797	4220	...	...	444	27	23	81	2	...
1891	4826	4315	8	...	387	20	23	72	1	...
1892	4600	3987	19	...	435	28	24	99	8	...
1893	4706	4034	37	...	483	30	24	94	4	...
1894	4729	4147	20	...	412	46	18	82	4	...
1895	4896	4183	29	...	547	31	28	69	9	...
1896	4920	4329	25	...	476	31	35	20	4	...
1897	4924	4303	22	...	473	31	68	18	8	1
1898	4973	4243	37	...	518	32	46	26	10	61
1899	4981	4171	60	...	645	18	36	21	7	23
1900 (June)	2636	2250	4	...	263	54	19	12	12	22

Scarlet Fever.—During the year only 348 cases of Scarlet Fever were notified and of these 11 proved fatal; 198 or 56 per cent. only of the cases were removed to Milton Hospital, and amongst these the mortality was slightly less than amongst those treated at home, the figures being 3·03 against 3·3 per cent.

TABLE XV.

Table showing the number of cases of SCARLET FEVER notified, the number of deaths, and the percentage of deaths to cases notified for the years 1884-1900.

Year	Cases notified	No. of Deaths	Percentage of deaths to notified cases
1884	266	9	3·38
1885	314	5	1·59
1886	343	18	5·24
1887	647	26	4·02
1888	465	12	2·58
1889	728	11	1·51
1890	573	19	3·31
1891	326	9	2·76
1892	1023	18	1·76
1893	1176	32	2·73
1894	458	14	3·06
1895	311	7	2·25
1896	524	19	3·62
1897	699	11	1·57
1898	710	27	3·80
1899	578	22	3·80
1900	348	11	3·16
Total (17 years)	9489	270	2·84

Table showing the number of cases of SCARLET FEVER admitted to the Milton Hospital, the number of deaths, and the percentage of deaths to number of cases of Scarlet Fever.

Year	Cases admitted	No. of Deaths	Percentage of deaths to cases treated
1884	13	...	...
1885	16	...	...
1886	29	...	...
1887	56	1	1.78
1888	120	1	0.88
1889	278	1	0.36
1890	384	11	2.86
1891	180	3	1.66
1892	532	6	1.12
1893	503	6	1.19
1894	238	8	3.36
1895	177	2	1.13
1896	352	11	3.15
1897	413	9	2.17
1898	436	23	5.27
1899	333	6	1.80
1900	198	6	3.03
Total (17 years)	4258	94	2.20

In 96 cases, or 27 per cent., sanitary defects were found upon the premises where scarlet fever occurred.

Diphtheria.—This disease was again more than usually prevalent during 1900, the total number of cases notified being 568, of which 104 were fatal. Only 211 or 37 per cent of the cases notified were removed to Milton Hospital. This is the more to be regretted when the evident advantage of hospital treatment is considered, the chance of recovery as I pointed out in my last report being far greater under the former than under the latter. For purposes of comparison I have drawn up the following table :—

Year	Patients treated at Home	Patients treated at Hospital	Percentage of recovery amongst	
			Patients at Home	Patients at Hospital
1896	83	41	80·7	90·2
1897	111	37	82·9	91·9
1898	165	118	78·8	83·9
1899	341	225	72·7	88·0
1900	357	211	78·7	86·7
Mean	211	126	78·7	88·1

From the above it will be seen during the past five years the recoveries amongst hospital treated patients have been ten per cent in advance of those treated at home, and it must be borne in mind that the cases that are removed are usually the worst cases. There is little doubt that the more favourable result of hospital treatment is largely due to antitoxin, which is more extensively used there, than in private practice.

Every house in which a case of diphtheria occurred was visited and examined for sanitary defects which were found in 195 or 34 per cent.

TABLE XVI.

Table showing the number of cases of DIPHTHERIA notified, the number of Deaths, and the per centage of Deaths to cases notified, for the years 1884 to 1900.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	174	41	23.44
1885	173	42	24.25
1886	232	65	26.72
1887	260	47	19.08
1888	128	17	13.28
1889	126	33	26.19
1890	212	47	22.69
1891	140	23	16.42
1892	121	26	21.48
1893	140	29	21.48
1894	139	34	24.46
1895	124	18	14.51
1896	124	20	16.12
1897	148	22	15.07
1898	283	54	19.08
1899	566	120	21.20
1900	568	104	18.30
Totals (17 years)	3658	742	20.28

Table showing the number of cases of DIPHTHERIA admitted to the Milton Hospital, the number of Deaths, and the per centage of Deaths to cases of Diphtheria admitted, for the years 1884 to 1900.

Year	Cases Admitted	No. of Deaths	Percentage of Deaths to cases admitted
1884	4	1	25.00
1885	6	—	—
1886	11	1	9.09
1887	27	8	23.70
1888	23	—	—
1889	18	—	—
1890	64	18	28.12
1891	51	4	7.84
1892	27	6	22.22
1893	12	4	33.33
1894	38	8	21.05
1895	46	5	10.87
1896	41	4	9.80
1897	37	3	8.11
1898	118	19	16.10
1899	225	27	11.90
1900	211	28	13.27
Totals (17 years)	959	136	14.18

Enteric or Typhoid Fever.—During the latter half of 1900 this disease became very prevalent in the Borough, in connection with which I presented the following report:—

Public Health Department,

Town Hall, Portsmouth,

September 22nd, 1900.

To the Chairman and Members of the Drainage and Sanitary Committee.

Gentlemen,

I beg to present to you the following report on the prevalence of typhoid in the Borough.

Portsmouth, as you are aware, is one of the towns in which typhoid fever is endemic, but the disease is more prevalent now than in any year since 1886. The disease began to make its presence marked in June, during which month 55 people were attacked; this increased by 197 in July, 297 in August, and 125 up to the 22nd of this month, giving a total of 674 cases up to the present.

The areas attacked first, which have also suffered most severely, are Portsea, and that part of Landport between Sultan Road and the Railway; and there are also a considerable number of cases in the small streets just South of the Railway, and in the streets on the West side of Twyford Avenue.

The cases occurred in the various districts as follows:—Portsmouth 27, Portsea 82, Kingston 273, Landport 281, Southsea 11, being an attack rate per ten thousand population as follows:—Portsmouth 38, Portsea 57, Kingston 35, Landport 36, Southsea 5. It is noticeable that the disease has selected for the most part the poorest, oldest, and most over-crowded areas.

Of those attacked 110 or 16 per cent. were under 5 years of age, 164 or 24 per cent. were between 5 and 10, 151 or 23 per cent. were between 10 and 15, 58 or 9 per cent. were between 15 and 20, the remainder, 191 or 28 per cent., being over 20 years of age. From which it will be seen 72 per cent. of the cases were under 20 years of age.

The percentage of deaths to cases cannot be accurately ascertained at present, as of course in a large number of cases the disease has not yet run its course, but the number of deaths registered up to the 22nd inst. are 46, giving a case death-rate of 7 per cent. The percentage death-rate in cases of typhoid in the last 10 years has been 12·8, and the death-rate in the Metropolitan Asylums Board for the last 23 years was 17·4 per cent., from

which it will be seen that the typhoid is of a particularly mild type. From my own experience and that of the Inspectors, on visiting the houses in which cases of fever occurred, I was early convinced that this was the case ; in a large number of cases, especially among children, apparently the whole course of the disease had consisted of four or five days diarrhoea, and sometimes the patients were actually up, dressed, and playing about when the Inspector arrived there on the same day that the notification was received.

CAUSES OF THE EPIDEMIC.

Water.—Any increase in the prevalence of typhoid at once directs attention to the water supply. In this town, as you are aware, the water is frequently analysed by me, and the springs, reservoirs, and collecting basins frequently inspected, and I am of opinion that the water supplied to Portsmouth is perfectly pure and has no share in the causation of the disease. Special enquiries were made in the case of every patient and only 41 of the cases, or 6 per cent., had partaken of specially large quantities of water. Moreover, if the water were the cause of the disease the whole Borough would be equally affected with the disease ; we should also expect a preponderance of adult females over adult males, which is not the case. Again, one would expect large institutions like the workhouse, the Asylum, and the Prison, where a large quantity of water is drunk, to be specially affected, but up to the present there have only been one case among the inmates at the Workhouse, none at the Prison, and a small outbreak of 12 cases at the Asylum, mostly in one ward. As at the beginning of the epidemic the centre of Landport, and Portsea were principally affected, I made enquiries to ascertain if these were supplied by separate mains which might possibly have been polluted in their course, but I was informed by Mr. Smith, the Engineer to the Water Company, that examinations are constantly made for leaks, and he is satisfied the mains are in perfectly good order ; moreover, the whole of the mains are connected with each other by open stop-cocks at Kingston Cross and at other points. The later development of the disease showed that it did not correspond so much with the Water Company's mains as with the poorer parts of the town. For these reasons, therefore, I have come to the conclusion, as stated above, that the present is not a water-borne epidemic.

Milk.—The milk supply in every case was ascertained, but it was soon evident that there was no marked incidence of cases among the customers of any particular milk-seller ; milk may therefore also be excluded as the cause of the disease.

Shell Fish.—Enquiries were instituted from the commencement of the epidemic as to the ingestion of shell fish, and it was found that 86 or 13 per cent. of the patients had had either cockles or mussels within a fortnight

of being attacked by the disease. Still, even if we allow that all these cases were actually caused by eating shell fish, the latter cannot be considered as one of the principal causes, although I have little doubt that they were the cause in a certain proportion. My opinion on this point is strengthened by visits to Emsworth and Chichester, from which quantities of cockles are sent to this town, by noting that the sewage from these towns discharges over the mud from which the shell fish are collected.

Sanitary defects.—I have stated before that the epidemic has made itself felt in the more insanitary dwelling houses. The principal defects have been as follows :—There were defective drains in 195 or 29 per cent. of the cases ; no flush to the water closets in 306 or 45 per cent. of the cases ; no ventilation to the drains in 385 or 57 per cent. of the cases ; defective paving round the houses in 129 or 19 per cent. of the cases. Complaints from Man-holes and Buchan traps in 67 or 10 per cent. of the cases.

It must be borne in mind also that the majority of these cases were in houses under and around which the soil in the past has been extremely polluted from old cess-pits and other methods of soil pollution.

It seems to me therefore that the cause of the epidemic must be found in Sanitary Conditions and Soil Pollutions in connection with dwelling houses. There are doubtless other causes for individual cases.

Other causes.—Two or three of the cases were soldiers who had contracted the disease in South Africa. Seventy of the children or 10 per cent. had partaken of ice cream previous to being ill, and this may also possibly account for some of the diseases ; possibly some also are caused by the ingestion of water cress from polluted water courses.

Preventive measures.—Every house where a case of the disease occurred was immediately visited by an Inspector, enquiries instituted and notice served on the owners to remove any insanitary defects which could be moved. Steps are being taken to enforce a flush to all water closets which are at present without one. Particular attention has been paid to the flushing with disinfectants of courts and narrow streets, sewers, and street gulleys. Special attention is paid to places where ice cream is made, and cleanliness in the vehicles of the ice-cream vendors enforced as far as possible. As many of the cases as it was possible to accommodate were moved to Milton Hospital, but of course we were unable to take in all who wished removal. Disinfectants were also left at every house where needed.

In dealing with the prevention of this disease, the cause, if my views on the causation are correct is a very difficult one to remove entirely ; so far as regards Sanitary Defects in dwelling houses, these are being dealt with by notices under the Public Health Acts, but as regards soil pollution we are

unable to effect much improvement. It must be borne in mind that a number of the houses affected by the fever used in past years to have no system of drainage except leaking cess-pits, and the soil must be a very suitable one for the growth of the typhoid bacillus; the pollution of the soil around houses is being prevented by the enforcing of impervious paving, but nothing except covering the site of the house with cement (which we have at present no power to enforce) will prevent the absorption into the house of the polluted ground air from the soil directly under the houses.

The only other practical step I could suggest would be the distribution of leaflets, similar to those issued for the prevention of Summer diarrhœa, urging particular precautions to be taken as to diet and to the cleanliness and sanitary condition of dwelling houses; but the quarters affected by typhoid fever are also these affected by Summer diarrhœa, and in these quarters the diarrhœa leaflets have already been distributed.

There is only one other possible cause of the disease that occurs to me, and that is that although the Water Company are convinced that no leaks occur in any of their principal mains, yet it is possible that some of the smaller supply pipes may, through taking up roads, repairing drains, &c., have become leaky and so carry infection to certain houses, but even this theory is not well supported by facts, for it is not probable that this would have happened only in the houses of the poorer classes and not in the case of the better class houses.

I submit a full table of the 674 cases which have occurred in June, July, August, and up to the 22nd of September.

I am, Gentlemen,

Your obedient servant,

A. MEARNS FRASER,

Medical Officer of Health.

Since presenting this report 374 cases occurred in the last three months of the year, bringing the total cases notified in the year up to 1,048. This is the largest number notified in one year since 1886, when there were notified 1,249, of which 124 or 9·9 per cent. proved fatal.

There were altogether 92 deaths registered from this disease; this gives the very low case mortality of 8·49. Only 157 cases were removed to Hospital, of which 18 or 11·46 per cent. proved fatal. The higher mortality amongst the cases treated at the Hospital is undoubtedly due to the fact that the

Information relating to TYPHOID FEVER in Portsmouth during June, July, August, and up to September 22nd, 1900.

Districts	Month	0—5		5—10		10—15		15—20		20 and over		Total notified cases	Total deaths	Defec- tive drains	No ventila- tion	No water to w.c.'s	Defec- tive paving	Smells from man- holes	Shell- fish eaten	Ice cream eaten	Quan- tity of water drunk
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.										
PORTSMOUTH	June	..	..	..	..	1	..	3	1	3	1	6	..	3	4	3	..	..	..	..	..
	July	..	..	..	..	..	..	..	..	..	3	5	1	1	2	1	..	1	..	..	..
	August	1	..	3	2	1	..	..	..	..	3	13	1	3	5	..	..	1	2	4	..
	September	..	..	1	..	1	..	..	..	..	1	3	..	1	2	..	..	..	1	..	..
PORTSEA	June	1	1	..	2	..	2	..	..	..	..	4	1	..	3	2	..	..	..	..	..
	July	1	2	4	4	3	4	3	1	3	1	24	2	6	18	10	3	1	3	..	1
	August	1	3	5	3	3	5	2	2	1	8	33	..	5	24	9	..	2	4	6	4
	September	2	..	6	4	2	4	1	..	1	3	21	..	3	14	10	..	1	2	4	..
KINGSTON	June	..	4	3	4	3	4	4	..	4	7	30	2	8	12	11	2	..	1	1	..
	July	5	8	11	9	13	9	11	5	11	11	90	6	25	43	43	13	13	11	5	6
	August	8	7	15	6	17	6	14	6	14	19	108	8	19	39	35	12	4	17	16	13
	September	3	5	6	3	3	3	12	3	12	5	45	13	10	12	20	6	6	4	2	2
LANDPORT	June	2	1	1	1	4	1	1	..	1	1	13	1	5	8	6	3	1	1	1	..
	July	9	8	6	14	3	14	14	..	6	6	78	2	22	51	44	26	11	13	6	..
	August	12	14	18	10	14	14	22	11	18	18	137	8	55	95	84	50	16	21	17	12
	September	4	5	2	7	7	7	5	3	9	9	53	1	24	44	26	14	10	6	7	2
SOUTHSEA	June	..	..	..	..	..	..	1	..	1	1	2	..	1	2	..	..	..	..	..	..
	July	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	August	1	1	1	..	..	..	2	..	..	..	6	..	1	5	1	..	..	..	..	1
	September	1	..	..	..	1	1	..	..	..	..	3	..	3	2	1	..	..	..	1	..
Totals		51	59	77	87	75	76	94	97	674	46	29 p.c.	385	195	306	129	67	86	70	41	6 p.c.
Percentage		16 p.c.										..	7 p.c.	29 p.c.	57 p.c.	45 p.c.	19 p.c.	10 p.c.	10 p.c.	10 p.c.	6 p.c.

cases removed were the most severe, and to the large number of cases, to which I referred in my report, treated at home, which were of so slight a character as to be well again in four or five days.

Since presenting the above report every case has been visited, but subsequent enquiry led to no fresh light being thrown upon the cause of the attack. I append, however, a table giving particulars of the facts elicited in connection with each of the cases, from which it will be seen that the later cases were apparently due to the same influences as the first 674, and occurred in the same areas.

It will be seen that in proportion to its size Portsea suffered far more heavily than any other part of the Borough, but that Southsea almost entirely escaped. The attack rate per 10,000 population for the various districts was:—
Portsmouth 45, Portsea 96, Kingston 55, Landport 56, and Southsea 8. The attack rate per 10,000 of the whole Borough was 53.

In taking the whole of the cases it will be found that there is a slight variation in the prevalence of insanitary conditions among the later cases from the first 674 on which the above report was based; it will be seen that defective drains were found in 28 instead of 29 per cent., no flush to the water-closets in 28 instead of 45 per cent., and no ventilation to the drains in 44 instead of 57 per cent. of the cases.

I am still unable to point to any one particular cause of the epidemic, but the incidence of the disease in the poorest and most insanitary parts of the Borough points to the necessity of persevering in sanitary reform in these districts and doing all in our power to get rid of the old and badly built streets and houses which are probably more than anything else responsible for the endemicity of typhoid in this Borough.

The opportunity of obtaining a bacteriological examination in cases of typhoid was not very largely taken advantage of by medical men, only 60 cases being sent in to me; of these 35 gave a positive result with Widal's reaction and 25 were negative.

Information relating to TYPHOID FEVER in Portsmouth during the year 1900.

	Deaths	Sex		Males				Females				No. of Patients who have had			Sanitary defects in houses				
		Males	Females	Under 5	5 to 10	10 to 15	15 and over	Under 5	5 to 10	10 to 15	15 and over	Cockles and shell-fish	Ice cream	Large amount of water	Defec- tive drains	Defec- tive paving	Drains unventi- lated	No water to w.c.	Offen- sive man- holes
June ...	2	17	21	3	1	7	6	5	2	5	8	3	2	...	5	3	24	6	...
July ...	11	80	96	12	28	10	30	17	25	30	24	8	5	2	21	21	119	43	10
August ...	17	127	133	19	31	29	48	24	33	27	49	54	33	38	59	61	129	90	23
September	31	148	160	22	37	34	55	21	41	34	64	32	34	32	68	44	102	95	30
October ...	19	69	82	4	24	16	25	10	20	16	37	12	19	4	29	25	36	11	18
November	13	38	42	10	11	6	11	8	13	4	17	4	3	...	19	10	36	35	3
December	1	15	20	3	7	1	4	3	3	4	10	...	1	1	10	4	14	14	2
Totals ...	94	494	554	73	139	103	179	88	137	120	209	113	97	77	211	168	460	294	86
Percentage	...	...	...	...	...	...	...	...	...	...	...	10.7	9.2	7.3	20.1	16.8	44.0	28.0	8.2

Number of cases of TYPHOID reported each day during the months of
June to December.

CASES REPORTED							
Day of month	June	July	August	Sept.	Oct.	Nov.	Dec.
1	1	1	4	10	11	5	1
2	...	3	8	12	6	7	...
3	...	5	2	11	4	3	2
4	1	5	6	15	3	...	5
5	1	3	8	18	4	2	2
6	2	2	9	10	5	4	3
7	1	2	9	16	...	2	1
8	1	...	3	4	4	3	...
9	...	6	3	11	10	4	...
10	6	6	1	9	10	3	3
11	3	4	6	10	4	...	...
12	...	5	10	24	3	2	3
13	1	5	4	7	5	6	...
14	...	6	10	7	...	4	2
15	1	5	10	12	5	...	3
16	1	5	15	10	6	3	...
17	1	4	6	8	10	2	2
18	2	5	5	8	2	...	...
19	3	8	8	6	2	5	...
20	2	8	13	8	7	6	3
21	3	6	14	15	...	3	...
22	...	11	7	11	8	1	...
23	2	6	8	9	7	1	...
24	1	18	6	9	3	...	1
25	1	5	5	12	7	1	...
26	...	4	13	9	8	4	...
27	...	12	16	6	4	2	...
28	...	4	17	6	...	2	1
29	2	2	4	8	7	3	3
30	2	13	18	7	6	2	...
31	...	7	12	...	...	...	...
	38	176	260	308	151	80	35

TABLE XVII.

Table showing the number of cases of TYPHOID FEVER notified, the number of Deaths, and the percentage of Deaths to cases notified, for the years 1884 to 1900.

Year	Cases Notified	No. of Deaths	Percentage of Deaths to cases notified
1884	539	58	10·76
1885	762	93	11·48
1886	1249	124	9·90
1887	554	53	9·52
1888	313	27	8·60
1889	317	32	10·01
1890	457	50	10·94
1891	265	33	12·40
1892	330	38	11·51
1893	361	54	14·96
1894	201	25	12·44
1895	258	33	12·74
1896	235	27	11·49
1897	320	42	13·08
1898	305	43	14·10
1899	531	75	14·12
1900	1083	92	8·49
Totals (17 years)	8080	899	11·12

Table showing the number of cases of TYPHOID FEVER admitted to the Milton Hospital, the number of Deaths, and the percentage of Deaths to cases of Typhoid Fever admitted for the years 1884 to 1900.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases admitted
1884	2	...	...
1885	6	...	...
1886	66	4	6·06
1887	37	1	2·70
1888	35	...	...
1889	48	6	12·50
1890	114	5	4·38
1891	51	4	7·84
1892	81	6	7·41
1893	94	3	3·19
1894	53	3	5·85
1895	83	4	4·82
1896	83	6	7·23
1897	102	11	10·78
1898	92	14	15·31
1899	96	12	12·50
1900	157	18	11·46
Totals (17 years)	1200	97	8·09

Measles.—This disease was practically absent from the Borough during the past year, only three deaths occurring from it.

Influenza.—There was a considerable decrease in the prevalence of influenza during the year, 65 deaths being registered against 120 in the previous year.

Puerperal Fever.—Twenty cases of puerperal fever were notified, of which 5 or 25 per cent. proved fatal. In every case the premises were examined for insanitary conditions, and steps taken for disinfection of the nurse or midwife in attendance. Sanitary defects were found upon 4, or 20 per cent., of the premises in which puerperal fever occurred.

Diarrhœa.—This disease I alluded to at some length in my last Annual Report, and the usual steps indicated therein were taken during the year, such as the issue of disinfectants, the flushing of courts and alleys, the distribution of leaflets, etc. The number of cases showed a very distinct decrease, there being only 159 deaths against 347 in the previous year. This is rather unexpected, inasmuch as the prevalence of typhoid fever is usually accompanied by an increased diarrhœa death-rate. In the 33 large towns the death-rate per 1,000 from diarrhœa was 0·94 and in Portsmouth 0·85.

Tuberculosis.—During the year 381 deaths were caused by tuberculosis; of these 286 were from tubercle of the lung or consumption, 33 from tubercle of the intestine, 42 from tubercle of the brain, and 20 from other forms of tuberculosis. The death-rate per 1,000 from consumption is 1·46, that for the previous year was 1·54. The deaths from this disease have shown a steady decline for a number of years. This decline in the consumption death-rate is due to one of two reasons, or most probably to each in part: firstly to the gradually improving sanitary condition of homes and workshops and the conditions of life generally rendering the race stronger and more able to fight successfully against the tubercle bacillus; and secondly it is suggested that owing to the ravages of the tubercle bacillus in the past a very large

number of those specially susceptible to consumption have been weeded out, so that the race is now composed of a far larger proportion of individuals less susceptible to the disease. Whichever may be the true cause of the decline, our duty according to present knowledge is to spare no pains in enforcing better sanitation and inculcating the doctrine of fresh air.

In connection with this disease an attempt is being made to erect a sanatorium by voluntary subscriptions for the treatment of consumptives. If this attempt is successful it will doubtless be of considerable value, but if not surely it is the duty of the Sanitary Authority to take the matter up and see that it is thoroughly carried out. Thousands of pounds are being spent in this and other towns on hospitals for the cure and prevention of scarlet fever, typhoid and diphtheria, yet the deaths from these three diseases taken together only amounted last year to 207, or very little more than half those caused by the tubercle bacillus. Taking into consideration the relative cost of maintenance of an open-air sanatorium and an infectious diseases hospital, I believe the former would be an even better investment for the Borough and give a better return in the shape of the prevention of death and disease.

As in the previous year every house in which a fatal case of tuberculosis occurred was visited to ascertain if any sanitary defects existed, and wherever permission could be obtained the premises were thoroughly disinfected.

Bacteriological investigations were made in 83 cases of suspected consumption, of which 20 gave a positive and 63 a negative result.

XVIII.

Showing the relationship of TEMPERATURE and FATAL CASES of
DIARRHŒA.

Week ending	Temperature of Air		Temperature of Earth Thermometer		Total Rainfall in inches	Deaths from Diarrhœa
	Mean of Maximum	Mean of Minimum	1 Foot	4 Feet		
1900						
June 30th ...	65·6	53·5	62·3	57·0	0·15	1
July 7th ...	67·1	54·6	63·4	57·7	0·57	0
„ 14th ...	71·8	56·3	65·5	58·3	0·05	1
„ 21st ...	77·4	58·6	69·5	59·6	0·03	4
„ 28th ...	78·5	54·6	70·3	61·0	0·38	10
Aug. 4th ...	69·6	59·0	66·6	62·5	0·51	9
„ 11th ...	65·6	54·2	61·6	60·9	0·95	13
„ 18th ...	77·6	57·4	65·6	60·5	...	15
„ 25th ...	69·8	55·8	65·0	61·0	0·35	14
Sept. 1st ...	66·1	55·3	61·6	60·7	0·32	22
„ 8th ...	69·4	46·7	59·8	60·1	0·05	24
„ 15th ...	70·1	50·5	60·3	59·8	...	8
„ 22nd ...	70·7	51·7	60·1	59·4	...	8
„ 29th ...	66·5	53·1	58·8	59·0	0·22	5
Oct. 6th ...	63·1	50·2	56·3	58·4	1·53	7
„ 13th ...	62·5	50·6	55·1	58·0	0·02	5
„ 20th ...	57·4	44·5	51·9	56·8	0·13	1
„ 27th ...	55·1	44·3	50·1	55·5	0·48	1
Nov. 3rd ...	58·7	50·1	52·3	54·7	1·59	1
„ 10th ...	56·5	45·5	51·6	54·8	0·63	1
„ 17th ...	53·4	42·9	48·0	53·8	1·33	1

TABLE XIX.

CASES OF INFECTIOUS DISEASES coming to the knowledge of
the Portsmouth Urban Sanitary Authority during the year 1900.

AGES		0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and over	Totals
SMALL POX													
Portsmouth	..												
Portsea	..												
Kingston	..												
Landport	..												
Southsea	..												
Total	..												
SCARLET FEVER													
Portsmouth	..	..	3	4	1	..	..	..	..	..	..	..	8
Portsea	..	..	4	15	5	1	..	..	..	..	..	..	25
Kingston	..	..	50	114	15	..	1	..	..	..	..	..	180
Landport	..	2	31	72	13	3	1	1	..	..	..	..	123
Southsea	..	..	5	8	3	3	..	..	..	..	..	..	19
Total	..	2	93	213	37	7	2	1	..	..	..	..	355
DIPHTHERIA													
Portsmouth	..	..	..	3	1	2	1	..	..	..	..	..	7
Portsea	..	..	8	1	2	2	1	..	..	..	..	..	14
Kingston	..	2	68	155	19	9	4	1	..	1	..	..	259
Landphrt	..	2	66	158	28	11	3	4	..	..	..	..	272
Southsea	..	..	5	7	5	3	..	1	..	..	..	..	21
Total	..	4	147	324	55	27	9	6	..	1	..	..	573
ENTERIC FEVER													
Portsmouth	..	..	1	15	9	5	3	..	1	..	..	..	34
Portsea	..	2	17	52	46	8	7	4	1	2	..	..	139
Kingston	..	7	58	167	111	60	24	6	7	1	..	..	441
Landport	..	4	74	171	113	47	16	15	7	2	1	..	450
Southsea	..	..	4	7	6	1	1	..	..	..	..	..	19
Total	..	13	154	412	285	121	51	25	16	5	1	..	1083
CONTINUED FEVER													
Portsmouth	..	..	..	..	..	..	1	..	..	..	..	..	1
Portsea	..	..	..	..	1	..	..	..	..	..	..	..	1
Kingston	..	..	8	9	7	1	2	1	..	..	..	..	28
Landport	..	..	5	11	3	2	..	..	..	..	..	..	21
Southsea	..	..	..	1	..	..	..	..	..	..	..	..	1
Total	..	..	13	22	10	3	3	1	..	..	..	..	52
PUERPERAL FEVER													
Portsmouth	..	..	..	..	..	..	1	..	..	..	..	..	1
Portsea	..	..	..	..	1	..	..	..	..	..	..	..	1
Kingston	..	..	..	..	5	5	..	..	..	..	..	..	10
Landport	..	..	..	..	2	4	1	..	..	..	..	..	7
Southsea	..	..	..	..	1	..	..	..	..	..	..	..	1
Total	..	..	..	..	9	9	2	..	..	..	..	..	20

TABLE XX.

WEEKLY RETURN of Cases of Infectious Diseases reported in accordance with the Portsmouth Corporation Act, 1883, during the year 1900.

WEEK ENDING		Small-pox	Scarlet Fever	Diphtheria	Fevers		Puerperal Fever	Total
					Enteric	Continued		
1900								
January	6	..	2	9	3	..	..	14
"	13	..	5	8	3	1	..	17
"	20	..	4	5	2	..	..	11
"	27	..	3	8	3	..	..	14
February	3	..	5	8	2	..	..	15
"	10	..	4	17	2	..	2	25
"	17	..	5	12	1	..	..	18
"	24	..	9	20	2	..	..	31
March	3	..	8	14	2	..	1	25
"	10	..	7	14	5	..	..	26
"	17	..	7	8	1	..	..	16
"	24	..	4	9	4	..	..	17
"	31	..	7	8	3	..	..	18
April	7	..	12	..	2	..	..	14
"	14	..	1	10	3	1	..	15
"	21	..	2	7	2	..	..	11
"	28	..	5	6	4	..	2	17
May	5	..	7	4	1	..	1	13
"	12	..	4	9	3	..	..	16
"	19	..	3	6	4	..	..	13
"	26	..	9	5	5	4	4	27
June	2	..	9	11	3	..	..	23
"	9	..	1	4	7	..	1	13
"	16	..	8	7	12	1	1	29
"	23	..	8	7	12	..	1	28
"	30	..	7	6	8	1	..	22
July	7	..	11	13	21	1	..	46
"	14	..	13	5	33	6	..	57
"	21	..	6	13	41	..	..	60
"	28	..	5	11	60	3	1	80
August	4	..	5	9	39	1	1	55
"	11	..	6	11	38	1	..	56
"	18	..	5	1	64	3	2	75
"	25	..	4	5	64	3	1	77
September	1	..	2	11	94	1	1	109
"	8	..	10	9	77	6	..	102
"	15	..	4	17	88	2	..	111
"	22	..	8	19	56	4	1	88
"	29	..	10	20	47	8	..	85
October	6	..	10	14	27	1	..	52
"	13	..	4	18	35	..	..	57
"	20	..	11	22	35	1	..	69
"	27	..	13	24	36	1	..	74
November	3	..	4	13	28	..	..	45
"	10	..	9	10	22	1	..	42
"	17	..	15	20	16	..	..	51
"	24	..	5	10	17	..	..	32
December	1	..	15	13	14	1	..	43
"	8	..	4	14	10	..	..	28
"	15	..	8	17	10	..	..	35
"	22	..	3	10	8	..	..	21
"	29	..	14	15	4	..	..	33
Total		..	348	568	1083	52	20	2071

TABLE XXI.

Shewing the number of Infectious Diseases reported to the Medical Officer of Health under the Portsmouth Corporation Act.

Year	Small-pox	Scarlet Fever	Diphtheria	Fever		Puer-peral Fever	Totals
				Enteric	Con- tinued		
1885	8	314	173	762	...	2	1259
1886	7	343	232	1249	...	14	1845
1887	23	647	260	554	...	11	1495
1888	3	465	128	313	...	11	920
1889	6	728	126	317	...	6	1183
1890	...	573	212	457	125	4	1371
1891	...	350	138	265	52	15	820
1892	...	1023	121	330	76	2	1552
1893	6	1153	135	366	69	25	1754
1894	22	458	139	201	49	9	878
1895	...	311	124	258	62	15	770
1896	6	524	124	235	51	18	958
1897	...	699	148	320	64	19	1250
1898	...	710	283	305	44	15	1357
1899	1	578	566	531	32	17	1725
1900	...	348	568	1083	52	20	2071
Totals ...	82	9224	3477	7546	676	203	21208
Means ...	5.1	576.5	217.3	471.6	42.2	12.6	1325.5

TABLE XXII.

Showing the Death-rates of the 7 Principal Zymotic Diseases during the 28 years, 1873-1900, distinguishing between those which are compulsorily Notified and those which are not.

DISEASE	BEFORE NOTIFICATION ACT										AFTER NOTIFICATION ACT																	
	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Small-pox ..	0.38	0.01	..	..	..	..	..	..	..	..	..	..	..	..	0.02	..	..	..	..	..	..	0.02	..	..	..	..	..	..
Scarlet Fever ..	0.10	0.30	0.38	3.78	0.29	0.13	0.08	0.06	0.19	0.30	0.11	0.06	0.03	0.12	0.17	0.08	0.07	0.12	0.06	0.11	0.10	0.08	0.04	0.10	0.06	0.16	0.11	0.06
Diphtheria ..	0.13	0.16	0.14	0.09	0.04	0.01	0.03	0.14	1.59	0.80	0.14	0.29	0.29	0.45	0.32	0.11	0.21	0.29	0.14	0.16	0.17	0.20	0.10	0.11	0.12	0.29	0.63	0.53
Fever ..	0.83	0.85	0.84	0.58	0.71	0.77	0.51	0.49	0.46	0.81	0.69	0.42	0.64	0.86	0.34	0.11	0.20	0.31	0.21	0.27	0.32	0.17	0.21	0.15	0.24	0.23	0.39	0.47
TOTAL NOTIFIABLE DISEASES	1.44	1.32	1.36	4.45	1.07	0.91	0.62	0.69	2.24	1.91	0.94	0.77	0.96	1.43	0.85	0.30	0.48	0.72	0.41	0.54	0.68	0.47	0.35	0.36	0.42	0.68	1.13	1.06
Measles ..	0.14	0.47	0.44	0.90	0.09	0.29	0.07	0.29	0.05	1.18	0.07	1.12	0.04	1.37	0.05	0.33	0.05	0.03	1.39	0.23	0.72	0.81	0.22	0.70	0.19	0.39	0.26	0.01
Whooping Cough ..	0.16	0.88	0.07	0.34	0.48	0.74	0.07	0.34	0.51	0.27	0.40	0.06	0.31	0.71	0.28	0.17	0.60	0.24	0.24	0.53	0.21	0.24	0.36	0.33	0.35	0.22	0.32	0.46
Diarrhoea ..	0.91	1.26	1.15	1.07	1.25	1.37	0.59	1.36	0.56	0.81	0.59	0.85	0.87	1.13	1.03	0.65	0.80	0.67	0.46	0.60	1.47	0.54	1.36	0.87	1.56	0.98	1.66	0.85
TOTAL NON-NOTIFI- ABLE DISEASES	1.21	2.61	1.66	2.31	1.83	2.40	0.73	1.99	1.12	2.26	1.06	2.03	1.22	3.41	1.36	1.15	1.45	0.93	2.09	1.36	2.40	1.59	1.94	1.90	2.10	1.59	2.24	1.32
TOTAL ZYMOTIC DEATH-RATE	2.65	3.93	3.02	6.76	2.90	3.31	1.35	2.68	3.46	4.17	2.00	2.80	2.18	4.84	2.21	1.45	1.93	1.65	2.50	1.90	3.08	2.06	3.30	2.26	2.52	2.27	3.38	2.38

Mean Death-rate from Notifiable Diseases for 11 years before the adoption of Notification .. 1.54 per 1000

.. 0.68 "

.. 1.74 "

.. 1.77 "

.. 3.30 "

.. 2.51 "

.. 17 after before

.. 11 before after

.. 17 after before

.. 11 years before after

TABLE XXIII.

Cases under Treatment at the Milton Hospital during the
Year 1900.

DISEASES	AGES								TOTAL
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 and over	
Small-pox ...	...	...	...	...	...	1	...	...	1
Scarlet Fever ...	2	41	135	25	5	2	...	...	210
Typhoid Fever ...	..	13	80	30	24	10	1	2	160
Diphtheria ...	...	58	134	17	12	2	...	1	224
Measles ...	...	...	...	1	...	...	...	...	1
Totals ...	2	112	349	73	41	15	1	3	596

TABLE XXIV.

Number of Patients admitted to the Hospital for the Years 1883 to 1900 .

DISEASES	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Small-pox	5	1	8	7	20	4	6	1	...	...	6	22	...	6	...	...	1	...
Scarlet Fever	1	13	16	29	56	120	278	384	180	532	503	238	177	352	413	436	333	198
Enteric or Typhoid	...	2	6	66	37	35	48	114	51	81	94	53	83	76	102	92	96	157
Diphtheria	...	4	6	11	27	23	18	69	52	27	12	38	46	38	37	118	225	211
Measles	1	2	1	11	4	8	5	1	22	...	6	22	15	10	6	6	...	1
Other Diseases	...	...	...	1	3	8	8	7	18	5	5	9	25	17	11	10	2	...
Total	7	22	37	125	147	194	363	576	322	645	626	382	346	499	569	662	657	567

Water Supply.—The following are the results of the water in the Borough analysed by me during the past year :—

Date when taken	Where taken from	Grains, per gallon			Hardness degrees	Parts per million		Poisonous metals	Remarks
		Total Solid Residue	Chlorine	Nitrogen as Nitrates		Free Ammonia	Albuminoid Ammonia		
Jan. 3	Town Hall	.. 20.5	0.87	0.25	16.0	0.00	0.02	Nil	Very faintly cloudy, well ærated.
„ 16	do.	.. 20.2	1.00	0.28	15.8	0.00	0.02	„	Very faintly cloudy.
„ 29	do.	.. 20.5	0.90	0.32	15.8	0.00	0.03	„	Clear and colourless.
Feb. 14	do.	.. 20.0	0.95	0.36	15.8	0.00	0.03	„	Clear and colourless.
„ 22	41 Taswell Road	.. 20.5	1.0	0.28	15.8	0.00	0.06	„	Cloudy, amorphous deposit, light orange tinge.
Mar. 5	Town Hall	.. 21.5	1.0	0.18	16.0	0.00	0.02	„	Clear, faint blue tinge, well ærated.
„ 16	do.	.. 20.5	1.0	0.30	15.8	0.00	0.02	„	Clear, faint blue tinge.
„ 29	do.	.. 20.5	0.9	0.34	16.3	0.00	0.06	„	Slightly cloudy, well ærated, faint yellowish tinge.
Apr. 10	do.	.. 21.5	0.8	0.24	16.0	0.00	0.04	„	Clear, bluish tint.
„ 26	do.	.. 22.5	0.9	0.30	17.0	0.00	0.02	„	Clear, colourless.
May 10	2 Redcliffe Gardens	23.0	0.95	0.38	16.6	0.00	0.02	„	Clear, faint rust coloured amorphous deposit.
„ 14	Town Hall	.. 22.0	0.9	0.34	16.5	0.00	0.02	„	Clear, colourless, sparkling.
„ 22	do.	.. 22.5	0.9	0.30	16.0	0.00	0.01	„	Clear, bluish tinge.
May 30	Well, Southsea	.. 75.7	8.3	5.1	28.0	0.12	0.24	„	Greyish tinge, considerable suspended matter, considerable charring on ignition. Loss on ignition, 35.1 grs. per gall.
June 5	do.	.. 74.5	6.9	2.21	32.0	1.08	0.10	„	Greyish tinge, considerable suspended matter, charring on ignition, slight organic smell, trace of nitrites. Loss on ignition, 38.4 grs. per gall.
„ 6	do.	.. 47.0	5.7	0.50	18.5	0.00	0.03	„	Faint yellow tinge, slight suspended matter, charring and fuming on ignition. Loss on ignition, 24.5 grs. per gall.
„ 7	Town Hall	.. 19.0	1.4	0.20	16.5	0.00	0.02	„	Clear, sparkling, faint bluish tinge.
July 3	do.	.. 20.0	0.9	0.21	16.0	0.00	0.02	„	Clear, sparkling.
„ 9	do.	.. 19.6	1.0	0.27	16.0	0.00	0.02	„	Clear, sparkling.
„ 16	do.	.. 18.4	1.0	0.30	15.8	0.01	0.02	„	Faint bluish tinge, slight amount of suspended vegetable matter.
Sept. 5	do.	.. 19.1	1.2	0.30	16.4	0.00	0.02	„	Clear, faint bluish tinge.
Oct. 2	do.	.. 19.4	1.2	0.27	16.8	0.00	0.02	„	Clear, well ærated.
„ 16	do.	.. 18.5	1.2	0.34	16.2	0.00	0.03	„	Clear, faint bluish tinge.
Nov. 5	do.	.. 18.3	1.2	0.28	16.3	0.00	0.02	„	Clear, colourless.
„ 16	do.	.. 19.5	1.1	0.30	16.1	0.00	0.06	„	Clear, colourless.
„ 24	do.	.. 19.1	1.1	0.28	15.9	0.00	0.04	„	Clear, faint blue tint.
Dec. 10	do.	.. 19.2	1.2	0.36	15.9	0.00	0.04	„	Clear, faint bluish tinge.

Slaughter-houses, Cowsheds, Dairies and Milkshops, and Workshops.—These have all been thoroughly inspected during the past years; particulars as to the various nuisances removed and legal proceedings taken will be found in the Inspector's Report.

Refuse Disposal.—Practically no advance in the method of refuse disposal has been made. Negotiations are still in progress for the purchase of a site for rubbish heaps rather more on the outskirts of the Borough than the present sites. In connection with the plague of flies suffered by people in the vicinity of refuse heaps, it is of interest to note that in connection with the typhoid fever in South Africa special attention was directed to the prodigious number of flies that were present in the camps. I have been unable to trace any relationship in this Borough between the flies and typhoid fever; it is worth bearing in mind, however, that as a single female fly lays about 120 eggs, and as the cycle of changes from egg to fly is completed in about three weeks, it seems probable that one female fly may have 25,000,000 descendants in the course of a hot summer (G. V. Poore). These refuse heaps form apparently a most suitable bed for the deposition of the eggs, and the nuisance caused by the flies, apart from any relationship they may bear to the prevalence of typhoid, is sufficient to warrant the removal of the heaps, if rubbish heaps there must be, at any rate to a spot as far from dwelling houses as possible.

Systematic Inspection of the Borough.—This has been efficiently carried out by the Inspectors. Every case of infectious disease has been visited and enquired into, and the sanitary conditions of the house in which it occurred examined. The same has also been done in each fatal case of diarrhoea and consumption.

An Inspector was again told off for the inspection of the ice cream stalls, and to visit the houses in which the ice cream is made. A considerable improvement in the cleanliness of these premises has followed the systematic inspection of these places.

Particular attention has also been paid to the paving around dwelling houses, and to the enforcing of the provision of a supply of flushing tanks to water closets. A large number of water closets in the Borough have no provision made for flushing, all the cleansing the pans obtain being effected by means of pails of water, and where the water-tap is some distance from the closet, the latter is, of course, very seldom properly flushed. The house-to-house inspection of some of the most insanitary streets was interrupted owing to the increased work thrown on the department by the prevalence of typhoid ; it will, however, be proceeded with wherever possible.

The large amount of the work done by the Inspectors will be seen from the Chief Inspector's Report, altogether over 30,000 visits were paid and a detached list of the various defects remedied is included, together with the results of the legal proceedings taken under the Public Health and Sale of Food and Drugs Acts.

Bacteriology.—Over 500 bacteriological examinations were made by me during the past year for medical practitioners in the Borough. The principal diseases in which examinations were made were diphtheria, typhoid fever and tuberculosis, the results being shown in the following table :—

Disease	Positive Reaction	Negative Reaction	Total
Diphtheria	174	122	296
Tuberculosis	20	63	83
Typhoid Fever	35	25	70
Other bacterial examinations		...	53
			<hr/> 502 <hr/>

As the advantages of bacterial examinations are being appreciated by medical men the demand for them is steadily increasing. Last year was the first in which I was asked to make examinations in tuberculosis and typhoid fever to any large extent.

APPENDIX.

TABLE I.—For Whole District.

Year		Population estimated to middle of each year	Births		Deaths under one year of age		Deaths at all ages—Total		Deaths in Public Institu- tions
			No.	Rate*	No.	Rate per 1000 Births regis- tered	No.	Rate*	
1890	..	156,667	4,879	30'15	648	132	2,871	18'1	504
1891	..	160,128	4,803	29'90	665	138	3,053	19'0	433
1892	..	163,667	4,563	27'88	719	157	3,026	18'4	446
1893	..	167,285	4,708	28'14	763	162	3,058	18'2	438
1894	..	170,973	4,709	27'54	611	129	2,593	15'1	429
1895	..	174,751	4,868	27'84	856	175	3,129	17'9	477
1896	..	178,612	5,006	28'03	785	156	3,030	16'9	518
1897	..	182,585	4,879	26'82	819	167	2,974	16'2	520
1898	..	186,618	4,971	26'64	681	137	3,048	16'3	502
1899	..	190,741	5,000	26'23	986	197	3,737	19'7	560
Averages for } years 1890-99 }		173,202	4,840	27'91	753	155	3,051	17'5	482
1900	..	194,955	4,995	25'62	771	154	3,359	17'2	687

*Rates calculated pe 1,000 of estimated population.

APPENDIX.—TABLE II.

Names of Localities }	WHOLE BOROUGH				PORTSMOUTH				PORTSEA				KINGSTON				LANDPORT				SOUTHSEA			
	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population esti- mated to middle of each year	Births registered	Deaths at all ages	Deaths under one year
1890 ..	156,667	4,879	2,847	648	..	126	88	21	..	374	200	45	..	2,019	830	249	..	2,211	1,108	300	..	147	141	14
1891 ..	160,128	4,803	3,053	665	5,323	147	93	24	12,820	373	196	50	57,795	1,977	984	257	70,578	2,139	1,199	287	13,612	167	148	20
1892 ..	163,667	4,563	3,026	719	7,014	118	89	26	15,449	310	191	41	58,568	1,910	883	286	69,204	2,066	1,220	306	13,442	169	197	20
1893 ..	167,285	4,708	3,058	763	6,987	..	91	19	15,398	..	196	42	61,212	..	999	330	69,888	..	1,174	314	13,798	..	160	29
1894 ..	170,973	4,709	2,593	611	6,933	..	72	14	15,260	..	139	35	63,466	..	873	274	69,519	..	935	244	14,958	..	145	13
1895 ..	174,751	4,868	3,129	856	6,685	..	71	23	15,126	..	180	63	65,802	..	1,049	358	71,247	..	1,146	356	15,691	..	206	32
1896 ..	178,612	5,006	3,030	785	6,839	157	83	18	14,989	358	200	57	68,252	2,243	936	308	71,363	2,078	1,090	333	17,169	170	203	20
1897 ..	182,585	4,897	2,974	819	6,839	108	70	13	14,989	318	161	32	70,279	2,250	985	360	72,978	2,048	1,052	360	17,500	173	186	11
1898 ..	186,618	4,971	3,048	681	7,039	170	84	24	14,389	333	204	53	71,907	2,219	1,531	303	75,181	2,063	1,075	282	18,107	186	154	19
1899 ..	190,741	5,000	3,737	986	7,000	..	95	31	14,200	..	218	62	74,773	..	1,349	462	76,268	..	1,326	380	18,500	..	189	23
Averages of years 1890-99	173,202	4,840	3,051	753	6,739	137	83	21	14,735	344	188	48	65,783	2,103	1,041	318	71,802	2,100	1,132	316	15,864	168	172	20
1900 ..	194,955	4,995	3,359	771	7,000	..	79	28	14,200	..	248	70	76,473	..	1,607	328	78,568	..	1,224	317	18,714	..	201	28

APPENDIX.

TABLE III.—Cases of Infectious Disease notified during the Year 1900.

Notifiable Disease	Cases notified in Whole District							Total Cases notified in each Locality					No. of Cases removed to Hospital from each Locality					
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwds.	Portsmouth	Portsea	Kingston	Landport	Southsea	Portsmouth	Portsea	Kingston	Landport	Southsea	Total
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	568	4	147	319	55	42	1	7	14	256	270	21	..	3	104	95	9	211
Membranous croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever ..	348	2	93	206	37	10	..	8	25	174	122	19	2	12	108	63	13	198
Typhus fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever ..	1083	13	154	412	285	213	6	34	139	441	450	19	4	15	71	61	6	157
Relapsing fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued fever ..	52	..	13	22	10	7	..	1	1	28	21	1	..	..	..	..	..	..
Puerperal fever ..	20	..	..	..	9	11	..	..	..	..	..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	2071	19	407	959	396	283	7	51	180	909	870	61	6	30	283	219	28	566

APPENDIX.

TABLE IV.—Causes of, and Ages at, Death during Year 1900.

CAUSES OF DEATH	Deaths in whole District at subjoined ages						Deaths in Localities (at all ages)					Deaths in Public Institutions	
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwds.	Portsmouth	Portsea	Kington	Landport		Southsea
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	3	1	2	..	..	..	..	1	..	1	..	1	..
Scarlet fever	11	..	5	5	..	1	..	..	2	7	2	..	8
Whooping cough	87	45	38	4	..	..	..	10	6	25	39	7	7
Diphtheria and membranous croup	104	3	56	43	1	1	..	..	3	58	40	3	29
Croup	4	..	4	..	..	..	..	1	..	1	2	..	..
Fever { Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric	92	..	13	24	21	34	..	1	7	56	27	1	28
Other continued	1	..	..	..	..	1	..	..	..	1	..	..	..
Epidemic influenza	65	5	3	4	3	34	16	3	1	29	25	7	4
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	159	133	12	1	..	7	6	8	11	65	70	5	6
Enteritis	61	45	9	1	..	3	3	3	4	27	24	3	4
Puerperal fever	5	..	..	..	1	4	..	..	..	3	2	..	..
Erysipelas	12	3	1	..	1	4	3	..	2	7	3	..	3
Other septic diseases	4	1	2	..	1	..	..	..	..	3	1	..	1
Plithisis	286	9	3	20	55	187	12	3	25	140	109	9	68
Other tubercular diseases	95	40	29	14	6	6	..	4	7	27	51	6	13
Cancer, malignant disease	139	..	1	..	..	82	56	4	11	77	37	10	23
Bronchitis	321	77	40	6	3	..	..	6	18	133	143	21	41
Pneumonia	109	13	16	9	8	47	16	2	14	52	31	10	34
Pleurisy	7	..	..	2	..	4	1	..	1	4	2	..	2
Other diseases of Respiratory organs	93	34	19	5	..	19	16	6	10	39	36	2	4
Alcoholism	54	..	..	1	1	43	9	2	4	28	15	5	16
Cirrhosis of liver	21	5	..	1	..	15	..	..	1	19	1	..	10
Venereal diseases	108	108	..	..	..	..	..	..	21	50	35	2	..
Premature birth	15	2	..	..	3	10	..	..	..	11	3	1	2
Diseases and accidents of parturition	317	2	1	10	25	159	120	4	26	154	104	29	63
Heart diseases	94	24	15	7	8	25	15	4	6	48	29	7	37
Accidents	23	..	..	..	1	16	6	1	2	9	10	1	4
Suicides	..	..	92	..	47	359	521	16	66	533	383	71	280
All other causes	1069	221	92	33	47	359	521	16	66	533	383	71	280
All causes	3359	771	352	190	185	1061	800	79	248	1607	1224	201	687

Port Sanitary Authority.

GENTLEMEN,

During the past year the vessels entering the Port of Portsmouth numbered 9,034, and were visited by Mr. Meades, the Port Sanitary Inspector, and when necessary by myself. The general sanitary condition was good; the majority, 6,707, were from the Solent, and 1,909 were coasting vessels.

The nationalities of the vessels from foreign ports were as follows:

French	...	21	Norwegian	...	19
Russian	...	8	Spanish	...	1
Swedish	...	10	Danish	...	8
German	...	13	British	...	317
Italian	...	1			
Dutch	...	10	Total	...	<u>408</u>

No case of infectious disease was reported on any of the above vessels.

As during the year several cases of plague occurred in British ports, steps were again taken to ensure the use of a hospital ship should any such cases be brought to this Port, and in September the following Report was submitted by me:

Town Hall,

September 11th, 1900.

To the Members of the Drainage and Sanitary Committee.

Gentlemen,

In view of the outbreak of plague in the United Kingdom, I beg to report to you the steps I have taken to protect this Port and Borough against the importation of the disease.

You will remember that last year, on the occurrence of plague in European ports, the following arrangements were made:—

First, by arrangement with the Collector of Customs and the Queen's Harbour Master, a boarding station was fixed outside the Harbour at Spithead, where all vessels coming from foreign infected ports were visited by the Customs officers, instead of being, as before, allowed to come into the Harbour before being visited.

Secondly, I arranged with the Queen's Harbour Master that the ship *Edgar*, which had previously been fitted as a hospital ship, but was then on the Admiralty sale list, should be put at my disposal for use as a hospital ship should a case of plague occur. Further, you authorised me, when needed, to engage the necessary nurses and ship caretakers, etc., and I held in readiness at Milton Hospital, for instant removal to the ship, sufficient furniture for any case that might have to be dealt with in an emergency.

This year, owing to the prevalence of plague in certain parts, I again wrote, on July 19th, to the Queen's Harbour Master, asking that the *Edgar* might still be kept at the disposal of the Port Sanitary Authority in case of need, to which I received the following reply :—

H.M. Dockyard, Portsmouth,
21st July, 1900.

Sir,—In answer to your letter of the 19th inst., addressed to Captain Rapson, I am directed by the Admiral Superintendent to inform you that the *Edgar* is now on the sale list and her accommodation ladders have been removed, but she is otherwise in much the same condition as last year.

I am, yours faithfully,

A. Mearns Fraser, Esq.,
Medical Officer of Health,
Town Hall, Portsmouth.

U. G. R. FROST,
Secretary.

To this letter I replied as follows :—

The Town Hall, Portsmouth,
July 23rd, 1900.

To the Admiral Superintendent,
H.M. Dockyard, Portsmouth.

Sir,—I am in receipt of your reply to my letter of the 19th inst. You do not, however, state whether in the event of plague being brought to this Port you will put the *Edgar* at my disposal for purposes of isolation. May I suggest that, in view of the very great importance of keeping this Port free from plague, the *Edgar* may be taken out of the sale list and kept for the purpose of isolating any cases of plague that may occur. As this ship has already been fitted and adapted for a hospital ship, it would seem a pity to allow it to be disposed of, when at any moment its use may prove of the utmost importance in keeping the Port free from infection.

I am informed from a reliable source that plague has again made its appearance in Oporto, and therefore is likely to spread to other Portuguese and Spanish ports. Last year, as you are probably aware, the *Edgar* was withdrawn from the sale list and reserved in readiness for any cases of plague that might occur, and the need for this is as urgent now as then.

I am not without hope that the Port Sanitary Authority with this assistance would be willing to carry out their share of the responsibility, which, however, is small compared with the vital interests of the Navy in keeping the Port free from plague.

I am, Sir, your obedient servant,

A. MEARNS FRASER,
Medical Officer of Health to the Borough
and Port of Portsmouth.

In answer to this I received a reply on August 2nd, stating that my letter had been referred to the Admiralty. After receiving this letter I took no further steps until September, when plague, as you are aware, having broken out in Glasgow, I wrote to the Admiral Superintendent of the Dockyard as follows :—

Town Hall,
September 3rd, 1900.

To the Admiral Superintendent,
H.M. Dockyard, Portsmouth.

Sir,—Referring to your letter of the 2nd ult., in which you informed me that the question of removing the *Edgar* from the sale list and keeping her at the disposal of the Portsmouth Port Sanitary Authority had been referred to the Admiralty, may I ask if any decision has been arrived at in the matter.

I would point out that the outbreak of plague in Glasgow now renders the matter one of greater urgency, but although a month has elapsed since the matter was referred to the Admiralty, I have received no further communication on the subject.

I am, Sir, your obedient servant,

A. MEARNS FRASER,
Medical Officer of Health to the Borough
and Port of Portsmouth.

To this letter I received the following reply :—

H.M. Dockyard, Portsmouth,
4th September, 1900.

Sir,—In reply to your letter of the 2nd inst., I am directed by the Admiral Superintendent to inform you that communication was received from the Admiralty yesterday which indicates that the question of the *Edgar* is receiving attention.

I am also to acquaint you that your letter of yesterday has been forwarded to their Lordships.

Yours faithfully,

A. Mearns Fraser, Esq.,
Medical Officer of Health,
Town Hall, Portsmouth.

EDW. FITZGERALD,
for Secretary.

On receipt of this letter I called on the Admiral Superintendent, pointing out that possibly the Admiralty would take some time to arrive at a decision, but in the meantime a case of plague might arrive, in which case I asked if he would undertake to let us have the *Edgar*. He replied that he could not do that on his own responsibility, but if I notified him of the occurrence of a case of plague he would at once telegraph to the Admiralty for permission to do so.

This is how the matter stood until this morning, when I received the following communication :—

H.M. Dockyard, Portsmouth,
September 10th, 1900.

Sir,—With reference to your letter of the 19th July and subsequent correspondence, I am directed by the Admiral Superintendent to forward for your information the attached copy of an Admiralty letter, authorising the appropriation of the *Edgar* (old) for the purpose of isolating any cases of plague which might occur at Portsmouth.

I am, Sir, yours faithfully,

EDWD. FITZGERALD,
for Secretary.

A. Mearns Fraser, Esq.,
Medical Officer of Health,
Portsmouth.

(Copy of Admiralty letter enclosed.)

10,258—8th September, 1900.

Re Yard letter of the 2nd August, No. 6,336, forwarding a communication from the Portsmouth Medical Officer of Health, requesting that the *Edgar* (old) may be removed from the sale list and kept for the purpose of isolating any cases of plague which may occur at Portsmouth, the Admiral Superintendent is informed that in view of the recent developments of plague in the country, it has been decided to comply with the above, and the Medical Officer of Health is to be informed accordingly. He is, however, further to be acquainted that the arrangement is only to be regarded as temporary while cases of plague are still to be found in Europe.

(Signed) A. J. DURSTON.

I am glad, therefore, to report that without involving the Sanitary Authority in any expense we are now assured of the use of a hospital ship, splendidly suited for our purpose, which can be moored at the Quarantine Station on the Motherbank at six hours notice. With regard to the question of nurses, I am in communication with the Secretary of the Chief Petty Officers' and Pensioners' Society, and I have also consulted the Director-General of Haslar Hospital on the matter, but there is a great

scarcity of sick-berth men out of employ at present, and I am not hopeful of being able to obtain nurses from this source; I would, therefore, suggest that an arrangement be made with one of the London Nursing Societies to supply male nurses, if required. In addition to which there would be needed some ship caretakers, cook, laundrymen, etc., and the use of a small steam launch. There is a very small amount of shipping between this port and Glasgow, not more on an average than one vessel a month, the usual cargo being iron for the Dockyard.

With regard to the importation of plague in a vessel from Glasgow and other home ports, there is in the Port Sanitary Regulations no provision made for detaining coasting vessels, whether infected or not. I would, therefore, suggest that a communication be sent to the Local Government Board, asking that the Customs may have the same powers of detention over a coasting vessel as they have at present over a vessel coming from a foreign port. At the present time the Customs officers have the power to detain for twelve hours any vessel from foreign ports that they may suspect to be infected with plague, in order that the Medical Officer of Health may visit and inspect before anyone is allowed to leave the ship. In the case of coasting vessels (and this applies to vessels from Glasgow) no such power of detention exists, and a coasting vessel could not be prevented from coming into the harbour, and persons from the ship might be landed before she had been inspected by me. This would be prevented if the Customs had the same power over coasting vessels as over vessels coming foreign.

I am, Gentlemen,

Your obedient servant,

A. MEARNS FRASER,

Medical Officer of Health to the Borough
and Port of Portsmouth.

The above report was adopted by the Port Sanitary Authority; the Local Government Board, however, could not see their way to extend to vessels from home ports the same regulations that are in force with regard to vessels from infected ports.

Fortunately, no case of plague was brought to this port during the year.

I have the honour to be, Gentlemen,

Your obedient servant,

A. MEARNS FRASER, M.B., D.P.H.,

Medical Officer to the Port of Portsmouth.



Report of the Chief Inspector of Nuisances

FOR THE YEAR 1900.

GENTLEMEN,

I have the honour to report that during the year 4,591 Notices have been served for the abatement of Nuisances, and that the following works have been carried out under the supervision of the Department, viz. :

DRAINAGE DEFECTS.

Drains cleansed	-	450
„ repaired with water-tight cement joints		2,337
„ ventilated or ventilating shafts repaired or raised		1,079
„ disconnected from the main sewer	-	10
Sink waste pipes disconnected from drain	-	48
Rain water stack pipes disconnected from drain		89
Soil pipes repaired	-	52
„ removed to outside of houses	-	9
Pan closets removed and replaced with approved closets		26
Bell and Bricklayers' traps removed	-	22
New water closet pans provided	-	192
Water closet fittings repaired	-	425
Water closets repaired	-	27
„ cleansed	-	102
Water laid on to water closets	-	73
„ „ urinals	-	2
Extra water closet accommodation provided	-	26
Cesspits cleansed	-	43
Waste pipes repaired or provided	-	181
„ trapped	-	8
Glazed earthenware sinks provided	-	158

Houses connected with main sewer	-	18
Yards drained	-	46

DEFECTS IN CONNECTION WITH DWELLING-HOUSES.

Roofs repaired	-	602
Outside walls repaired or protected	-	88
Sashes and frames repaired or renewed	-	217
Stairs and flooring repaired	-	315
Space under floors ventilated	-	36
Houses cleansed and lime-washed	-	587
Walls and ceilings repaired	-	193
Rain water spouts repaired or provided	-	797
Ashpits constructed	-	3
Yards repaved	-	858
Urinals repaired	-	6
„ cleansed	-	4
Water closets ventilated	-	2

OVERCROWDING.

Overcrowding in dwelling houses abated	-	19
„ workshops „	-	42

OFFENSIVE MATTER.

Manure removed	-	62
Refuse „	-	55
Bones and rags removed	-	11
Human excrement „	-	3
Stagnant water „	-	18
Dead wells filled in	-	10

ANIMALS.

Animals removed	-	8
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SLAUGHTER-HOUSES, COW-STABLES, STABLES, &c.

Slaughter-houses cleansed	-	37
Cow-sheds cleansed	-	5
Stables cleansed	-	57
„ drained	-	24
„ paved	-	18
Sties cleansed	-	12

Sties drained	-	-	4
Manure pits provided	-	-	6
„ repaired	-	-	4

WORKSHOPS.

Workshops cleansed	-	-	64
Ice cream stores and utensils cleansed	-	-	5
Bakehouses cleansed	-	-	81
„ utensils cleansed	-	-	1
Workshops ventilated	-	-	1
Laundries cleansed	-	-	9
Flooring repaired	-	-	13
Ceilings „	-	-	4
Roofs „	-	-	22
Smoke Nuisances abated	-	-	3
Smoke shafts provided	-	-	3

BYE-LAWS.

Notices under Slaughter-house Bye-laws complied with	24
„ Nuisance „ „	26
„ Dairies, Cowsheds, and Milkshops Bye-laws	4
„ Commoh Lodging house Bye-laws	1
Total	<u>9787</u>

The following Articles of Food have either been seized by the Inspectors or given up by the owners for the purpose of destruction as unfit for the food of man, viz.:

Carcases of beef	-	-	4
„ mutton	-	-	2
„ lamb	-	-	1
„ pork	-	-	6
Leg of beef	-	-	1
Pieces of beef	-	-	lbs. 130
„ pork	-	-	cwt. 1½
Pigs' chines	-	-	„ 2
„ plucks	-	-	cask 1
„ kidneys	-	-	„ 1
„ chitterlings	-	-	sets 6
Bullocks' offal	-	-	„ 3

Bloaters	-	-	boxes	28
Haddock	-	-	„	47
„	-	-	kit	1
Herrings	-	-	barrel	1
„	-	-	boxes of 400	6
Soles	-	-	boxes	2
Bream	-	-	„	2
Whitebait	-	-	box	1
Plaice	-	-	kits	3
Mackerel	-	-	boxes	38
Mixed fish	-	-	kits	3
„	-	-	cwts.	9
Codling	-	-	boxes	10
Mullet	-	-	„	2
Smelts	-	-	„	9
Shrimps	-	-	baskets	19
„	-	-	gallons	4
Dabs	-	-	stones	9
Sprats	-	-	barrels	2
„	-	-	bushels	
Winkles	-	-	bags	2
Rabbits	-	-		116
Geese	-	-		4
Pears	-	-	cases	40
Cherries	-	-	baskets	2
Plums	-	-	Packages	939
Greengages	-	-	„	245

INSPECTION.

During the year 6,453 Dwelling-houses were inspected, and where necessary, Notices were served for the abatement of Nuisances found to exist.

14,202 Re-inspections of property under Nuisance Notices were made.

719 Complaints were made at the Office and received attention.

4,645 visits were made for the Inspection of Slaughter-houses, and 24 Notices under the Slaughter-house Bye-laws were issued.

1,651 inspections of the various dairies, cowsheds, and milkshops were made.

820 visits, of which 320 were night visits, were paid to the common lodging houses.

2,014 visits were made to the different bakehouses.

4,728 visits were made by Inspector Benjamin, the Workshop Inspector, to the various workshops in the district.

INFECTIOUS DISEASES.

During the year, 2,246 cases of infectious diseases were investigated; in addition to which, particulars were taken of 231 fatal cases of consumption.

1,362 infected rooms were disinfected by the disinfectors.

DRAINAGE.

6,240 suspected drains were tested or re-tested, of which number 2,161 or 34 per cent. were found to be defective.

Inspector Turner also tested the drains of 1,763 new houses.

FOOD AND DRUGS ACT.

During the year your Inspectors obtained 251 samples of Food and Drugs, and submitted the same to the Public Analyst for analysis.

PROSECUTIONS AND FINES.

Public Health Act.

Under the Nuisance Clauses of this Act, proceedings were taken in five cases.

Magistrates Orders were made for the necessary work to be done in 4 cases, and fines and costs amounting to £3 were inflicted. One case was adjourned for a month, the work in the meantime being done to the satisfaction of the Authority.

An appeal was lodged by Mr. J. H. Street, the defendant in one of these cases, against the order of the magistrates to erect a 4 inch ventilating shaft. The appeal was heard before Mr. Temple Cooke, Deputy Recorder, on April 7th, when judgment was given in favour of the appellant.

Food and Drugs Act.

Under this Act proceedings were taken against 32 persons for selling adulterated articles of food and drugs.

Convictions were obtained in 27 cases, and fines and costs amounting to £95 7s. were inflicted; one case was withdrawn and three cases were dismissed.

Common Lodging House Bye-laws.

Three informations under these bye-laws were instituted against the keeper of a common lodging house. He was convicted on two of the informations and fined 19/- including costs, and was also convicted and fined under the Public Health Act 15/- for failing to lime-wash the premises in accordance with the Act.

Slaughter-house Bye-laws.

Two informations were laid under these bye-laws. The defendant was convicted and fined 10/6 in one case and 7/6 in the other, the work having been carried out to the satisfaction of the Authority.

Dairies, Cowsheds, and Milkshops Order.

One person was summoned for selling milk without being registered as a purveyor of milk. As he had been fined £3 for adulteration, and when before the Court promised to give up the trade, the Justices suspended judgment.

Nuisance Bye-laws.

Proceedings were taken against two persons with respect to pig keeping. Convictions were obtained in each case, and fines and costs amounting to £3 were inflicted.

I have the honour to be, Gentlemen,

Your obedient servant,

FRED. L. BELL,

Chief Inspector of Nuisances.

The Diseases (Animals) Act.

INSPECTOR'S REPORT

FOR THE YEAR ENDING 31ST DECEMBER, 1900.

Inspection of Cattle.—The following is a list of animals which have been imported into the Borough during the year ending December 31st, 1900. The greatest number arrived at the Fratton Railway Station, from various markets.

Beasts	...	...	8,454
Sheep	...	...	38,170
Calves	...	...	3,420
Pigs	...	...	15,668
Total			<u>65,712</u>

As compared with last year this list shows an increase in all animals. This is owing to the dead meat importation falling off considerably at the beginning of the year, as there was some difficulty in obtaining ships for that purpose owing to the War.

Inspection of Cattle Trucks, &c.—2,553 cattle trucks, 1,552 horse boxes, and 270 tow-boats have been inspected during the year, and they were all found to be properly cleansed and lime-washed in accordance with the Act.

Swine Fever.—There have been only two outbreaks of this disease during the past year, a number which must be regarded as very satisfactory, taking into consideration the large number of persons who deal in store pigs who have very little knowledge of the business, and who are very liable to be imposed upon by unscrupulous dealers. By order of the Board of Agriculture 30 animals were slaughtered, a sum of £26 14s. being paid by the Board to the owners as compensation.

The feeding of pigs is a matter which very possibly has some bearing on this subject ; a large quantity of refuse from the barracks and ships in Harbour can always be obtained, but before use this often needs careful treatment, which in very many cases is not given.

In consequence of swine fever outbreaks being prevalent in the Borough and adjoining districts, the Board of Agriculture deemed it necessary to make a Swine Fever Infected Area Order, which came into operation on January 11th, 1900. In accordance with the Order, I issued 636 licenses from various markets, which licensed 6,317 pigs into the Borough, all of which had my supervision until they were slaughtered. Some slight infringements of the Act were committed, which were in all cases reported to the Town Clerk.

Rabies.—The seizure and destruction of dogs reported to me to have been suspicious of rabies by the Police were seen by the Veterinary Surgeon, Mr. F. E. Knott, M.R.C.V.S., who, after making a *post mortem*, was in no case able to certify rabies ; the majority suffered from fits through teething.

Importation of Dogs Order, 1897.—Twenty-four licenses have been forwarded to me by the Town Clerk from the Board of Agriculture for dogs in various parts of the Borough. The greatest difficulty in our supervision, in seeing the Order rigorously carried out, occurs amongst Army officers who have no local residence, but are constantly shifting from place to place. This Order is carried out by Inspector Turner. All cases of infringements were reported to the Town Clerk.

I should like to take this opportunity of thanking the Chief Constable, and his staff, for the great assistance they have rendered me in carrying out the Act effectually.

I have the honour to be, Gentlemen,

Your obedient servant,

G. W. MONKCOM,

Inspector under the Diseases (Animals) Act.

REPORT OF THE MEDICAL OFFICER OF HEALTH 75

Public Analyst's Report.

The Laboratory,

Park Road, Portsmouth.

Feb. 22nd, 1901.

To the Chairman and Members of the Finance Committee.

GENTLEMEN,

I have the honour to present you my report for the year ending December 31st, 1900.

During the year 265 samples of Foods and Drugs were submitted to me for analysis. The population of the Borough in 1900 was estimated by the Registrar General at 194,955, thus the number of samples of all kinds examined was equivalent to one for every 735·6 persons, as compared with one for every 953·7 persons in the preceding year. The number of samples examined in proportion to the population more nearly approaches the minimum recommended by the Select Committee on food products adulteration.

Of the 265 samples sent in, 16, the majority of which were milk, were sent in by private persons.

Table showing the number of Samples examined, and the number found adulterated, during the last ten years in Portsmouth.

Year	Milk	Butter	Bread and Flour	Groceries	Wines, Spirits and Beers	Drugs	Sundries	Total	No. of Samples Adulterated
1891	110	11	11	48	25	...	1	206	40
1892	124	24	6	24	18	...	7	203	30
1893	141	9	10	12	14	...	32	218	31
1894	126	28	1	18	20	10	35	238	27
1895	165	33	3	30	18	8	...	257	38
1896	84	18	...	28	22	6	10	168	33
1897	101	32	...	47	6	12	4	202	42
1898	104	20	4	48	14	12	...	202	45
1899	108	32	15	9	14	22	...	200	47
1900	123	33	13	39	36	21	...	265	45

Table showing the number of Samples examined, the number and percentage adulterated, in the last three years in Portsmouth, and in 1899 in England and Wales.

	Year	Samples Examined	Samples Adulterated	Percentage Adulterated
PORTSMOUTH ...	1898	202	45	22·2
„ ...	1899	200	47	23·5
„ ...	1900	265	45	16·9
England and Wales ...	1899	53·056	4·970	9·4

From these figures it will be seen that the hopes expressed in the last annual report have some prospect of realization. The percentage adulterated is 6·6 below the number adulterated in 1899, and nearly three less than the lowest percentage for for the last five years. Of the 249 samples taken by your Inspectors, acting under the Foods and Drugs Acts, 42, or 16·8 per cent., were adulterated, whilst of the 16 samples sent in by private persons, 3, or 18·7 per cent., were adulterated. In 1899, of the 188 samples taken by the Inspectors 21·27 per cent. were adulterated.

Eleven of the private samples were milk, and, in one or two cases, samples were subsequently taken by your Inspectors under Section 3 of the Sale of Foods and Drugs Act, 1879, and Section 14, 1899, and convictions obtained against farmers who were sending adulterated milk into the town.

MILK.

Table showing the number of Samples examined, of inferior quality, of adulterated, and the percentage adulterated.

	Year	Samples Examined	Inferior Quality	Adulterated	Percentage Adulterated
PORTSMOUTH ...	1898	104	15	31	29·8
„ ...	1899	108	10	31	28·7
„ ...	1900	123	10	30	24·3
England and Wales ...	1899	21·964	...	2·314	10·5

It will be noticed that there is a reduction (4·4) in the percentage of adulterated samples. This reduction is more real than apparent. During last year all the milk samples were judged on a higher standard than in previous years. Judging the samples in 1899 on the same standard the adulteration was 34·2 per cent.; whilst, on the other hand, if the samples examined in 1900 had been compared with the standard used in 1899 the percentage adulteration would have been 18·7. Thus it is evident there has been a considerable improvement in the quality of the milk obtained by your Inspectors, for, whilst the standard of quality required has been greater, the amount of adulteration has decreased by ten per cent.

It has been suggested that the adulteration of milk is carried out in a more scientific way than formerly, when large quantities of water were indiscriminately added to milk. The form which adulteration now takes is the lowering of the quantity of fat in the milk, generally by the addition of separated milk to whole milk, until the amount of fat in the mixture is just sufficient to pass. This is borne out by a consideration of the results of analyses, for in 12 cases the amount of fat in the milk came between 2·75 per cent., the old standard, and 3 per cent. the new standard, whilst 10 other samples, which are returned as of inferior quality, only just reached the higher standard and gave indications of having been reduced in quality by the addition of separated milk.

During the year my attention was called to a cow which was giving abnormal milk. The proprietors found that at one milking it gave a very good milk, and at the next it gave a

very poor milk ; in fact, one which would be reported as having had part of the fat removed. As this cow was kept for the purpose of supplying children and invalids it caused some anxiety, more especially as the animal was in good condition and was being well kept.

After making several analyses of the milk given at various times, I came to the conclusion that the somewhat remarkable results were due to the cow being milked three times a day at very uneven intervals of time, and I informed the proprietors that I thought the cow would give normal milk if milked twice a day at more regular intervals. I have not heard whether this treatment was successful, but since then the results published of experiments conducted in London has confirmed my experience, for it has been shown that the fat is yielded very unevenly when there are three milkings a day, and more especially when the intervals between the milkings are unequal.

The practice of milking cows more than twice a day would appear to be growing, and it is apparent that if such milk is reported adulterated, any appeal to the cow would depend entirely upon the time at which the cow was milked. It has been shown that the milk of a cow is affected by the nature of the food eaten and that it is possible to feed a cow in such a way that it will give a poor milk, but a milk dealer would be just as responsible for the sale of such a milk as if he had added water to the milk. In the same way it would be no excuse for a low quality of milk to say that the cows are milked three times a day. The dairyman must exercise care to insure that his milk is not inferior in nature, substance, and quality, to the standard milk. It is evident there must be a limit to the number of times a day that a cow may be milked and that limit must be decided entirely by the quality of the milk produced. Experience teaches that more than twice a day reduces the quality of the milk, and any dairyman who exceeds this in order to increase the quantity of the milk must be prepared to meet the consequences of reducing the quality.

One gratifying feature of the milk trade of the town has been the growth, during the last two years, of the supply of

sterilized milk. Of all foods milk has probably the greatest effect on the health of the people, and until such time as a tuberculous cow becomes a rarity the best way of resisting the ravages of tuberculosis will be by using milk the disease germs of which have been destroyed.

Table showing the amount of adulteration, the action taken, and the results of such action.

No.	By whom obtained	Adulteration		Result
1	Sent in ..	23	per cent. of added water	..
2	Inspector ..	20.5	" " "	.. Fined £7 11s. 6d.
3	Sent in ..	16	" " "	..
4	Inspector ..	23.3	per cent. of cream abstracted and	} Fined £3 8s. 6d.
		4.4	" water added	
5	"	70	" cream abstracted	.. Fined £3 8s. 6d.
6	"	48.3	" " "	.. Fined £3 14s.
7	"	3.3	" " "	.. No prosecution.
8	"	30	" " "	.. Fined £3 8s. 6d.
9	"	7.3	" water added	.. Fined £1 7s. 6d.
10	"	1.6	" " "	.. No prosecution.
11	"	5	" cream abstracted	.. Fined £1 9s. 6d.
12	"	8.3	" " "	.. Fined £1 8s. 6d.
13	"	54.96	" " " and	} Fined £1 3s.
		4.4	" water added	
14	"	3.3	" cream abstracted	.. Fined 18/6 (4th conviction)
15	"	36.6	" " " and	} Fined £15 17s. 6d.
		6.9	" water added	
16	"	13	" cream abstracted	.. Defendant absconded.
17	"	36.6	" " "	.. Fined £1.
18	"	6.6	" " "	.. Fined £1 5s.
19	"	13.3	" " " and	} Fined £2.
		2.4	" water added	
20	"	10	" cream abstracted	.. Fined £5.
21	"	33.3	" " " and	} Fined £1 17s. 6d.
		6.1	" water added	
22	Sent in ..	4.4	" " "	..
23	Inspector ..	2.2	" " "	.. Judgment suspended ; defendant being fined for sample 24.
24	"	3.3	" " "	.. Fined £4, including costs, £2 10s. 10d.
25	"	18	" cream abstracted	.. Fined £9 14s. 6d.
26	"	8.3	" " " and	} Fined £5 15s.
		2.5	" water added	
27	"	8	" cream abstracted	.. Fined £3 1s.
28	"	8	" " "	.. Fined £2.
29	Sent in ..	20	" " "	..
30	Inspector ..	5	" " "	.. Fined 10/- and costs, £4 5s. 6d.

BUTTER.

Table showing the number of Samples examined, and the number and percentage adulterated.

	Year	Samples Examined	Samples Adulterated	Percentage Adulterated
PORTSMOUTH ...	1898	20	5	25
" ...	1899	32	9	28.1
" ...	1900	33	2	6
England and Wales ...	1899	10.478	1.018	9.7

Most of the samples of butter were purchased by persons who could not be known to the vendors as acting under the Food and Drugs Acts, and it is very satisfactory, in comparison with previous experience, that only two of the samples were adulterated. Excess of water was the adulteration in each case, and, from the experience of other towns, it would appear that this form of adulteration is to take the place of adulteration with foreign fat. Excluding the two samples returned as adulterated, the maximum quantity of water found in any sample of butter last year was 15 per cent., whilst for the whole of the samples the average percentage was 11. Irish butters have always contained a considerable quantity of water, but other butters rarely exceed 15 per cent., and the average is considerably lower. The retention of this large amount of water places such a butter maker in undue competition with those who remove as much of the water as possible, for in the cases mentioned, where there was 20 and 19 per cent. of water present, the maker could offer his butter at from 5 to 8 per cent. less than the genuine butter maker, because, of every hundred-weight of butter he sells, over seven pounds of it is unnecessary water, which costs him nothing.

Perhaps it is too soon to judge of the effect of the Food and Drugs Act, 1899, upon the adulteration of butter; but one cannot explain such a marked improvement other than by attributing it partly to the restrictions of that Act and partly to the heavier penalties inflicted for butter adulteration in the previous year. Owing to the requirements of the 1899 Act grocers have been warned "to handle margarine as if it were gunpowder"; and it is probable that, in consequence of the care which must be taken in fulfilling these requirements, many have given over dealing in margarine, for quite recently your Inspectors experienced some difficulty in obtaining samples of margarine.

COFFEE AND GROCERIES.

Of twelve samples of coffee, five were mixtures of coffee and chicory; two of the latter being labelled in accordance with the Act as mixtures. The quantity of chicory in these

mixtures ranged from 18 to 61 per cent. Five samples of bread were examined, one being adulterated with alum. Eight samples of flour, four of cheese, and three of sugar, all proved to be genuine; whilst of eight samples of baking powder two were adulterated. One sample of vinegar out of eight examined was adulterated with added water.

DRUGS.

Eight samples of olive oil, four of castor oil, five of sodium bicarbonate, and four of magnesia ponderosa, were examined. Of these, one sample of olive oil consisted entirely of sesamé oil; whilst one of magnesia ponderosa consisted entirely of magnesii carbonas ponderosus, and another contained 13 per cent. of carbonate.

For some time there has been a difference of opinion as to whether the Pharmacopœia should be regarded as a standard for drugs. This difference has been definitely settled by a recent decision of the High Court of Justice, King's Bench Division, "that, if a drug to be found in the Pharmacopœia is asked for, this drug must be supplied; and if it is not sold with the ingredients and in the proportions prescribed by the Pharmacopœia there is at least *prima facie* evidence that what is sold is not of the nature, substance and quality which was demanded. The decision is of great importance, for it rejects what has hitherto been known as the "commercial standard," a standard varying according to the manufacturer, in favour of the standard fixed by the Medical Council.

No.	Sample	Adulteration	Result
1	Coffee	18.1 per cent. chicory ..	No prosecution.
2	"	60.9 " ..	Fined 10/-, including costs.
3	Baking powder ..	3.4 " alum ..	Fined £1 9s. 6d.
4	Butter	4.4 " water ..	No prosecution.
5	"	3.0 " ..	"
6	Coffee	53.28 " chicory ..	Labelled as mixture.
7	"	41.8 " ..	"
8	Baking powder ..	9.7 " alum ..	Case " dismissed, Authority paying costs, £5 18s.
9	Olive oil	100 " Sesamé oil ..	Fined £1.
10	Bread	'9 " alum ..	Case withdrawn, Authority paying costs, £3 3s.
11	Magnesia Ponderosa	100 " Mag. Carbonas Ponderosus	Dismissed.
12	"	13 " ditto ..	"
13	Coffee	28.6 " chicory ..	Fined £2.
14	Vinegar	15 " water added ..	Fined 15/-, including costs.

WINES, SPIRITS, AND BEER.

The following were examined :—

Hock	2	Whiskey	10	Gin	6
Rum	4	Beer	12	Porter	2

One sample of whiskey was adulterated to the extent of 8·9 degrees below the standard fixed by the Act of 1879, and in this case a fine of five pounds was inflicted. One sample of rum was 5·2 degrees below the same standard, but as there was a card exhibited in the bar no action was taken.

Table showing the number of Samples of Spirits examined and the number and percentage adulterated.

	Year	Samples Examined	Samples Adulterated	Percentage Adulterated
PORTSMOUTH ...	1898	14	4	35·7
„ ...	1899	14	5	28·5
„ ...	1900	20	2	10
England and Wales ...	1899	4,724	611	12·9

The samples of beer were taken more particularly with the object of examining them for arsenic, but in no case could any be found. It would seem that the presence of arsenic in beer has been confined to those beers brewed from sugar obtained from one manufacturer; and judging from the experience of other analysts, the sugars used in the South of England have been free from this poison.

It has been proposed that it should be made illegal for these sugars to be used in making beer; but it must be remembered that the sugars can be prepared without containing arsenic, just as good beer can be brewed without using these substitutes for malt. Thus the whole question becomes one of finance, that is, whether the brewer can afford to give up using the cheaper substitute for malt. Probably the best solution of the difficulty would be to place the brewer in the same position as the grocer. If beers were labelled so that the purchasers could know whether they were buying beer brewed from malt alone, and thus avoid the cheaper qualities, it is probable the latter would die out, for it has evidently paid

those who do not use sugar substitutes to spend a considerable sum of money in advertising the fact.

But it is not the brewers alone who are concerned in the prohibition of these prepared sugars. They enter largely into the composition of confectionery and jams, and are used for adulterating other sweet substances, such as glycerine and golden syrup. The difficulty will only be half met by the proposals of the supporters of the Pure Beer Movement, for their object is to prevent the possibility of arsenic entering beer by forbidding the use of these sugars. But the arguments applied to beer apply equally to the other cases, so that any legislation to be effective must prohibit the use of all prepared sugars in all articles intended for human consumption. As with beer, so with confectionery, it is not necessary to use the sugars, and if they are used, the public should be made aware of the fact by sufficient labelling of the articles, just as the grocer tells his customers that his margarine is not made from milk or that his coffee is a mixture of coffee and chicory.

PROSECUTIONS.

Prosecutions were instituted in 32 cases and convictions obtained in 28. Fines amounting in the aggregate to £95 7s. were inflicted. The average penalty inflicted was £3 8s. 1d., as compared with £4 10s. 1d. in the previous year; whilst the highest penalty enforced was £15 17s. 6d., and the lowest ten shillings.

The greater penalties inflicted in cases of food adulteration have undoubtedly helped towards the improvement to be noticed during the last twelve months, and so long as the adulterator is made to recognise that adulteration will not pay so long will the improvement continue.

I have the honour to be, Gentlemen,

Your obedient servant,

J. MOORE MURRAY.



Infantile Diarrhoea, 1900.

The Red Spots • indicate Deaths from Diarrhoea under
the age of one Year.





此圖係由本館代印

凡欲閱者請向本館取閱

（此處有模糊文字，可能為出版信息或館名）

Zymotic Diseases, 1900.

The Red Spots • indicate Deaths from Scarlet Fever,
The Blue Spots • indicate Deaths from Typhoid Fever,
The Yellow Spots • indicate Deaths from Diphtheria.





大德通立為
一覽

Portions Coloured Red indicate
Property reported upon and im-
proved during the year 1900.

Those in lighter shade indicate
blocks dealt with during previous
sixteen years.





TABLE 1A.
For whole District.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Residents registered beyond District. (Work-house.)	DEATHS AT ALL AGES. NETT.	
		Number	Rate.*	Number	Rate per 1,000 Births registered.	Number	Rate.*			Number	Rate.*
1890.	105,163	3718	35.35	923	245	2726	25.92	82	144	2870	27.29
1891.	107,864	3830	35.50	892	227	2807	26.02	61	177	2984	27.66
1892.	109,038	3686	33.80	805	216	2481	22.75	55	190	2671	24.49
1893.	110,225	3809	34.55	1032	268	2753	24.97	48	150	2903	26.33
1894.	111,425	3545	31.81	770	217	2186	19.61	56	129	2315	20.77
1895.	112,638	3702	32.95	927	249	2528	22.44	81	161	2689	23.87
1896.	113,864	3673	32.25	760	204	2191	19.24	58	151	2342	20.56
1897.	115,103	3687	32.03	954	263	2687	23.34	63	166	2853	24.78
1898.	116,356	3559	30.58	812	221	2107	18.10	81	138	2245	19.29
1899.	117,622	3492	29.68	889	255	2492	21.18	85	181	2673	22.72
Averages for years 1890-1899.	111,929	3670	32.85	876	236	2495	22.35	67	158	2654	23.77
1900.	118,902	3410	28.67	814	236	2636	22.16	66	200	2836	23.85

*Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of Area covered by water) } 3,721.

Total population at all ages.....107864
Number of inhabited houses 22342
Average number of persons per house 4.81

At Census of 1891

TABLE 2A.

NAMES OF LOCALITIES.		1.—ST PETER'S WARD.				2.—PARK WARD.				3.—FISHWICK WARD.				4.—ST. JOHN'S WARD.				5.—CHRIST CHURCH WARD.				6.—MAUDLAND WARD.				7.—INSTITUTIONS.		
YEAR.		Population esti- mated to middle of each Year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all ages.	Deaths under 1 Year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.
1890	...	19,570	804	499	192	27,167	929	710	270	19,182	833	564	224	13,459	359	319	110	13,310	388	251	70	12,475	405	301	51	...	82	6
1891	...	20,145	798	601	211	27,892	937	740	227	19,782	882	570	214	13,582	413	301	101	13,510	351	274	52	12,953	449	260	85	...	61	2
1892	...	20,674	767	480	146	26,293	920	617	224	22,517	825	579	204	12,921	423	326	110	12,914	302	201	55	13,719	446	223	66	3	55	...
1893	...	20,911	815	543	228	26,593	876	695	254	22,767	912	594	254	13,071	394	284	116	12,989	372	288	85	13,894	440	301	98	...	48	1
1894	...	21,151	772	412	166	26,903	813	531	188	23,037	802	479	206	13,171	385	289	91	13,109	358	231	62	14,054	411	190	54	4	56	3
1895	...	21,396	820	505	204	27,228	891	651	245	23,337	838	555	223	13,271	441	331	116	13,209	308	215	65	14,197	403	218	72	1	81	2
1896	...	21,606	794	417	158	27,892	905	617	232	23,597	798	439	160	13,426	413	275	95	13,314	348	212	56	14,376	412	193	57	3	58	2
1897	...	21,831	792	546	218	27,898	934	647	241	23,886	798	568	218	13,526	434	316	100	13,389	331	247	84	14,573	392	246	88	6	63	5
1898	...	22,081	758	362	155	28,203	905	567	251	24,186	805	446	188	13,679	395	248	82	13,464	300	188	53	14,743	393	215	77	3	81	6
1899	...	22,281	719	444	165	28,509	897	623	248	24,426	773	526	211	13,839	407	309	109	13,614	302	237	76	14,953	389	268	75	5	85	5
Averages of Years 1890 to 1899		21,164	783	480	184	27,457	900	639	238	22,671	826	532	210	13,394	406	299	103	13,282	336	234	65	13,993	414	241	72	2	67	3
1900	...	22,531	715	506	179	28,819	873	677	214	24,696	765	567	184	13,989	361	312	96	13,714	285	234	55	15,153	411	274	77	...	66	...

TABLE 3A.

Cases of Infectious Disease notified during the Year 1900.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.						NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.					
	At all Ages.	At Ages—Years.						St. Peter's Ward.	Park Ward.	Fishwick Ward.	St. John's Ward.	Christ Church Ward.	Maudland Ward.	St. Peter's Ward.	Park Ward.	Fishwick Ward.	St. John's Ward.	Christ Church Ward.	Maudland Ward.
		Under 1.	1 to 5	5 to 15	15 to 25	25 to 65	65 and up-wards												
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	108	4	49	39	7	9	...	21	16	38	18	7	8	...	...	...	...	...	1
Membranous Croup ...	7	2	4	1	...	...	...	...	3	4	...	...	...	...	...	...	...	...	..
Erysipelas ...	58	1	2	7	4	44	...	16	10	13	9	4	6	...	...	...	...	...	...
Scarlet Fever ...	504	1	180	291	23	9	...	146	130	58	26	48	96	4	4	1	2	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	162	...	13	45	45	59	...	33	30	35	31	19	14	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	12	1	4	4	...	3	...	2	...	5	...	...	5	...	...	...	...	...	...
Puerperal Fever ...	8	...	...	...	...	...	...	...	4	1	1	1	1	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	859	9	252	387	79	124	...	218	193	154	85	79	130	4	4	1	2	...	1

TABLE 4A.
Causes of, and Ages at, Death during Year, 1900.

Causes of Death.	Deaths in whole District at subjoined Ages.							Deaths in Localities (at all ages).							Deaths in Public Institutions.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	St. Peter's Ward.	Park Ward.	Fishwick Ward.	St. John's Ward.	Christ Church Ward.	Maudland Ward.	Work-house.	
Small-pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	121	31	81	7	2	...	...	10	39	33	28	5	5	...	1
Scarlet Fever	32	1	21	8	2	...	...	9	8	5	...	3	5	...	2
Whooping Cough	64	24	37	2	1	...	...	9	12	15	19	5	4	...	...
Diphtheria and Membranous Croup	42	3	33	6	...	...	...	9	8	13	7	2	1	...	2
Croup	20	4	14	2	...	...	...	2	8	4	1	2	3	...	...
Fever { Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric	42	...	2	13	13	14	...	5	10	7	11	4	4	1	1
{ Other continued	2	1	...	...	...	...	1	1	...	...	...	...	1	...	...
Epidemic Influenza	75	6	3	2	3	42	19	12	16	14	12	16	5	12	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	199	156	30	...	1	7	5	40	61	55	14	7	21	...	1
Enteritis	25	17	2	2	...	4	...	8	5	5	3	3	1	...	...
Puerperal Fever	2	...	...	...	...	2	...	...	1	1	...	...	...	1	...
Erysipelas	8	1	...	...	1	4	2	1	2	2	1	1	1	2	...
Other Septic Diseases	2	1	1	...	...	...	...	1	1	...	...	...	...	...	...
Phthisis	154	1	4	12	30	106	1	30	34	40	18	14	14	14	4
Other Tubercular Diseases	113	61	25	13	5	8	1	24	33	27	8	4	13	...	4
Cancer, Malignant Disease ...	69	1	...	...	...	51	17	15	14	13	5	10	9	11	3
Bronchitis	369	97	61	9	5	101	96	87	88	77	40	36	38	28	3
Pneumonia	174	24	41	4	10	83	12	38	50	32	21	13	19	10	1
Pleurisy... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory organs	3	...	...	2	...	1	...	...	1	1	...	1	...	...	...
Alcoholism }	35	...	...	...	1	30	4	7	8	2	3	3	9	4	3
Cirrhosis of Liver } .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Venereal Diseases	6	4	2	...	...	...	...	1	2	2	1	...	...	...	...
Premature Birth	65	65	...	...	...	...	...	22	9	10	15	2	7	...	...
Diseases and accidents of Parturition	11	...	...	...	2	9	...	3	2	2	..	2	2	...	...
Heart Diseases	169	5	3	7	10	99	45	30	43	39	22	13	16	20	6
Accidents	44	6	5	5	5	16	7	2	7	9	2	4	3	...	17
Suicides	6	...	...	1	1	4	...	1	2	1	...	...	2	...	...
Old Age	90	...	...	...	...	3	87	20	26	15	10	9	9	37	1
All other causes	694	296	89	20	33	164	92	122	183	141	72	75	84	60	17
All causes	2636	805	454	115	125	748	389	509	673	565	313	234	276	200	66

Infantile Mortality.
1900.



